

A PROVISIONAL CHECKLIST OF THE RHOPALOCERA OF THE EASTERN SIDE OF LAKE TANGANYIKA

by

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With 36 text-figures and 14 plates

INTRODUCTION

The following list is in the first place based on collections made by the author, and mainly concerns the districts of Kigoma, Mpanda and Ufipa. However, in order to make the data of butterflies known from this area more complete, it includes as many records as possible, made by other collectors. These are as follows: The Kyoto University African Primate Expedition, that collected for several years at Mukuyu and Mihumu about 60 to 80 km to the south of Kigoma; Miss Goodall, who collected at Gombe Stream north of Kigoma; T.H.E. Jackson's African collector, Watulege, who collected in some places around Mpanda and Kigoma, including the Mahale mountain range; and finally Major Graham's African collector, who trapped *Charaxes* in the Mukuyu area.

In the present paper 733 species of butterflies have been listed, but more thorough collecting will probably produce many more. I would estimate the total number of species existing in this area at between 800 and 850. About 170 are new records for Tanzania and probably over 30 of them are new for East Africa.

In order to study the genitalia, specimens have been dissected of the majority of the more difficult groups, such as *Syntarucus*, *Axiocerses*, the *Teriomima* group, *Lachnochnema*, the *Iolaus* group, *Oboronia*, *Anthene*, *Uranothauma*, *Cacyreus* and others of the Lycaenidae, *Neptis* (Nymphalidae) and *Ypthima* and *Neocoenyra* (Satyridae) and several groups of the Hesperiidae and Pieridae. Much help with the identification has earlier been received from Dr. R. H. Carcasson; some Lycaenidae have been checked by Dr. H. Stempffer and Dr. G. E. Tite. Dr. M. Condamin has checked most of the material of the genus *Bicyclus* (Satyridae). Many of the *Charaxes* have been examined by the late Dr. van Someren.

For the nomenclature, Wallace Peters' checklist (1952) has been followed to a great extent, but whenever appropriate, newer works have been consulted.

DESCRIPTION OF THE RESPECTIVE AREAS (text-figs. 1 and 2, pls. 1-3)

The region dealt with in the present paper is illustrated in text-figs. 1 and 2. Two main conditions have been taken into account in drawing the boundaries for the recorded areas namely topography and geology. These are two important factors for the lepidopterological fauna; in this respect reference can also be made to my two papers in "Atalanta" (later "Atalanta Norvegica") of 1968 and 1969.

The area between Malagarazi river (south of Kigoma) and Burundi, is not very well known to me, and except for Gombe Stream, there are few records of butterflies here. For that reason I have not taken the trouble to divide the area into numbered zones and the collecting places from this area will be named in full. The same applies to the Ufipa district and the very rarely investigated parts of eastern Mpanda.

From the area north of Kigoma, I have only records of part of Goodall's and of my own collection at Gombe Stream near Lake Tanganyika and scattered collecting from the Uwinza-Kibondo road. The Gombe Stream area, with mountains rising rather steeply up from the lake-shore, contains scattered riverine forests in the valleys and *Brachystegia* woodland on the ridges and mountain slopes. The highest ridge,

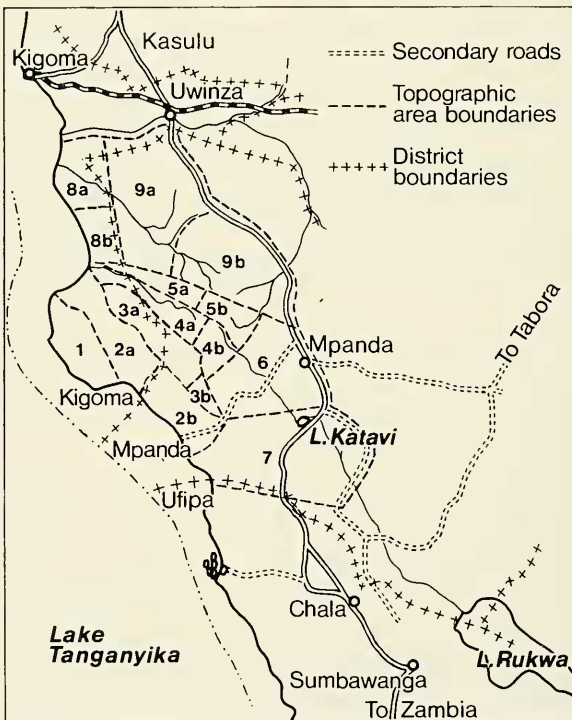


Fig. 1. Topographical areas; for explanation, see text.

extending parallel to the lake-shore, is mainly covered by open grassland. There are some interesting finds of butterflies. The hills further inland are mostly devoid of woodland and forest, due to the trees being cut down for firewood or on behalf of cultivation. This part, except the Park itself, is much more densely populated than the country to the south of Kigoma.

Area 1. The Mahale ridge, including Mt. Kungwe, is the highest mountain range on this side of Lake Tanganyika. Area 1 which comprises this mountainous peninsula, is a basement area of uniform gneiss (Mahale gneiss), bordering the complex basement formations to the east. The Mahale gneiss is very poor in mica and garnet, while in the other basement areas mica bearing schists with garnets are predominant.

This is a very interesting area with great variation in flora; there is forest in patches, from the lakeshore, as at Kasoge, to an altitude of more than 2300 m at Sisaga Mt. and Kungwe Mt.; there is also open montane grassland and mountain shrubs and woodland in lower altitudes. Numerous rivulets descend from the steep mountain sides. A wild and magnificent landscape. I have made 14 short safaris to this mountain, but I am sure that my collections are far from complete. The mountain area can only be reached on foot, or by boat from the lake.

Area 2a and b. This is low, undulating country situated between Lake Tanganyika and Mahale on one side and the Wanzizi-Kakungu scarp on the other. Area 2a is the moister part with more permanent water courses, heavily flanked by riverine forest and large areas of bamboo. The vegetation of 2b is largely woodland of savanna-like character. There are some concentrations of bamboo in the moister area close to the mountain range of 3a and 3b.

Area 3a and b. This is a mountainous area stretching in the Kigoma and Mpanda district, and including the Kakungu-Mweze-Wanzizi escarpment, and the Lubalizi and Utinta valleys. Utinta cuts through the highlands at an altitude of 1200-1300 m and is therefore a natural border between 3a and 3b. Area 3a is the highest part, with mountain tops of 1800-1900 m, and a large area, viz., Sitwe, Ngondo and the Karobwa-Kakungu Mts., is covered with montane grassland and solid bamboo with more or less scattered, stunted, deciduous trees and shrubs. There are numerous small permanent water courses with rich riverine vegetation. Part of the Mweze Mt. itself and also Karobwa Mt. are clothed with evergreen montane forest up to the top.

The Mweze-Sitwe grassland enjoys a very rich Lycaenid fauna and here the collecting is very good after the grass is burnt in August to September and perhaps in October if the rain is late.

Area 3b is a hilly country, most of which is heavily covered with *Brachystegia* woodland. Some rare Lycaenids emerge here after the rain has started in October to November. The only place with open grass, is the very top of the ridge of the Wanzizi hills at 1550-1600 m. Here are also large patches of forests climbing the hillsides and bordering the grassland on top.

Area 4a and b. The Luegele valley, situated in 4a, is the more interesting area, with rather extensive forest remnants. Area 4b, the Katuma valley, is largely dominated

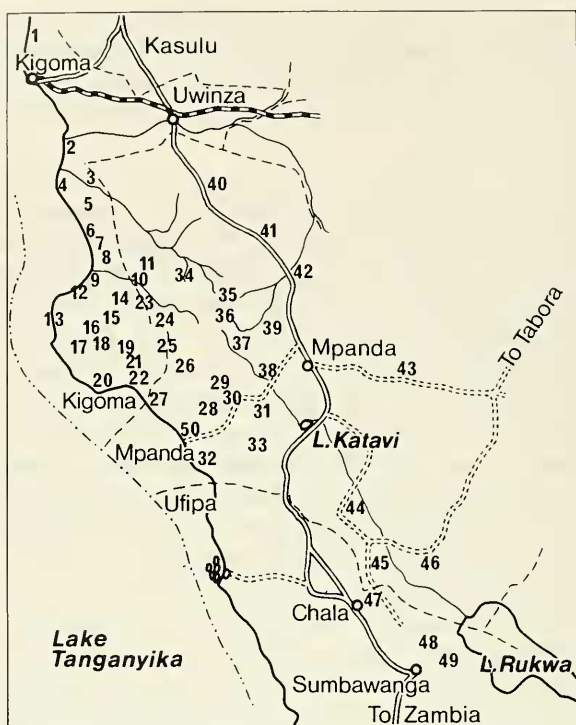


Fig. 2. Localities.

1. Gombe Stream National Park 800—1600 m.
2. Muhanga 900 m.
3. Mihumu 900—1000 m.
4. Mukuyu 800—900 m.
5. Kararumpeta Mt. ridge 1500—1600 m.
6. Helembe 800 m, Kefu forest 900 m, Kasha forest 1000 m.
7. Kapalamasenga, Mugondozi rivers 900—1000 m.
8. Mugombazi river ca. 1000 m.
9. Bulimba 800—1000 m.
10. Luegele river ca. 1100 m, Luntampa, Kapapa 1100—1200 m.
11. Ntakatta forest 1200—1500 m.
12. Logoza-Mgambo 800 m.
13. Kasoje (Kasoge) forest 800—1000 m.
14. Lubalizi river 1100—1300 m.
15. Karobwa-Kakungu Mts. 1700—1900 m.
16. Kasja 1100—1200 m.
17. Ujamba 2000 m, Mahale ridge 2000—2500 m.
18. Lukandamira 1600—1800 m.
19. Masaba ca. 1200 m.
20. Kibweza-Karia 800 m.
21. Ugaraba, Yampehu ca. 1100 m.
22. Kabakaranga 900 m.
23. Ngondo 1700—1800 m.
24. Mweze Mt. 1900 m, Sitwe 1600—1800 m.
25. Mkulya river 1400—1500 m.
26. Luega river 1200 m.
27. Lower Luega 800—1000 m.
28. Wanzizi hills 1400—1600 m, Mabwe 1200 m.
29. Lugalla hills 1200—1400 m.
30. Sibweza ca. 1100 m.
31. Nkungwe 1100—1200 m.
32. Karema, Sangu 800 and 900 m.
33. Kansanga 1100—1200 m.
34. Mt. Ipumba 1900 m.
35. Mt. Sitebi 1900—2000 m.
36. Kampisa river 1500—1600 m. Ntobo river, Upper Katuma river 1600 m.
37. Katuma village 1100 m.
38. Iloba 1000 m.
39. Katuma-Mpanda road ca. 1300 m.
40. Busondo ca. 1400 m.
41. Mishamu ca. 1200 m.
42. Nyamanzi river ca. 1200 m.
43. Uruwira plateau forest islands ca. 1300 m.
44. Useqya ca. 1000 m.
45. Kanindi, Mamba ca. 1000 m.
46. Rungwa ca. 900 m.
47. Mbuzi Mt. 2000 m.
48. Chulwe Mt. ca. 1900 m.
49. Mbizi forest 2000—2200 m.
50. Ikola, 800 m.

by heavy and open woodland, with riverine forests descending the gullies from the sandstone ridge. Most of the original forest along the Katuma river was destroyed by the local population in previous times. At present, most of the area is uninhabited.

Area 5a and b. The greater part of this area is occupied by a highland country situated inside the sandstone area, at the junction of this and the basic formations to the south, at 4a and b (only the Kapalamagulu Mt. near the lake is not sandstone but noritic gabbro). The conspicuous feature of this section is the high ridge commencing close to Lake Tanganyika at Mt. Kapalamagulu, stretching eastwards towards Mt. Sifuta and Mt. Sitebi (2000 m) at 5b, which is the highest part of the ridge. The lower stretch, closer to the lake, varies between 1200-1500 m and is mostly covered with woodland and some forest. Mt. Kapalamagulu, however, is covered with grasslands and for the greater part devoid of trees. The gullies and valleys of the eastern section of 5a are more heavily clothed with riverine forests and the largest of these is the Ntakatta impenetrable forest and thickets which cuts diagonally through the mountain range. But the lower part of this forest has been reduced by the local inhabitants since I first saw it over 20 years ago. The highest part of the sandstone ridge with bare, grass covered mountain slopes and ridges, is poor in butterflies during the rains, but ideal collecting ground for Lycaenids after the grass is burnt, in August to September. So far, the most important collecting ground the writer has found on this high sandstone area, is the Kampisa valley and Mt. Sitebi. The forests are easily accessible on foot, as this is far from any human occupation and big game have trampled plenty of paths inside.

Area 6. The northern and western part of area 6 is characterized by *Brachystegia* clothed hills passing into savanna and plains further south-east. Here we approach a dryer region with little or no evergreen trees.

Area 7. This is also a typical woodland and savanna country with low hills merging with plains which mostly become flooded during the rainy season. It is a hot and arid place during the dry spell.

Area 8a and b, and 9a and b. This part consists of sandstone formations with numerous mesas and ridges reaching a height of up to 1600 m. The general direction of these ridges is NE-SW, approximately parallel to the lake. From the lake-shore at 780 m, the country rises abruptly to a low ridge of about 1000 m; behind the ridge it drops again to about 900 m, and rises gradually toward the east, broken by many gullies and ridges. The coastal sections 8a and b are the best known parts of the area. The most important collecting places are invariably the small remnants of evergreen forest, which for the greater part are situated along water courses, of which the Lugufu valley is a good example and probably the most interesting. Close to the coast near Mukuyu and Helembe, there are also several evergreen forests away from the streams, covering hills and valleys to the extent of one or two square miles, in patches. These coastal forest remnants consist of shorter, more stunted trees and more heavily covered with lianas than is usual further inland. These remnants and the forest relics on top of many of the mountains are a good indication of a former well developed primeval forest, covering most of the country to the east of Lake Tanganyika. Their decline is mainly due to the present drier climate. As the trees are not fire resistant, as

is the woodland vegetation, they easily perish in the frequent grass fires during the dry season.

The inhabitants of this part of Tanzania apply shifting cultivation, that is, they seldom stay in one spot for more than two to five years, then shift to another place where they again cut down and burn another stretch of forest for cultivation. These evergreen forests hardly ever grow up again after they have been cut down and abandoned. This is first of all due to the yearly grass fires that destroy all regrowth of these types of trees. The only spots where I have seen partial or complete regrowth of evergreen forest in the areas of Mpanda, Kigoma and Ufipa, are clearings inside the Kasoge forest at Lake Tanganyika, west of Mt. Kungwe. The humidity here is higher than elsewhere and grass fires are less frequent.

The coastal evergreen forests of 8a and b become very arid in the dry season and towards the end of it, in September and October, very few butterflies are seen. But during the rains and early dry season, June-July to August, they abound.

Lugufu is the largest river south of Malagarasi and its tributaries from Mihumu upstream are richly bordered with riverine trees. Mihumu is situated at 900 m, surrounded by hills up to 1300 m. These hills are all covered with woodland of the same type as the rest of area 8a, 8b. A fairly high mountain area, the Kararumpeta range (1600 m) stretches south-west of Mihumu. This range rises very steeply from the Wazizi river, which runs to the north on the east side. The western sides slope less steeply towards the low hills parallel to the lake. There is no, or very little forest growth along the Wazizi; it was probably destroyed by earlier cultivation, but high up in the Kararumpeta range, evergreen trees clothe the river gullies. The vegetation on top is partly grass, partly bamboo and woodland. Where the mountain slope is not too steep for trees, woodland is dominant.

South of Kararumpeta, in area 8b, stand Mkuyu Mt. (Mkuyu Mt. as indicated on maps, is not correct; the local name is "Sifumbi", but I have not found this name on any map). Its vegetation is poor looking stunted woodland on sandstones and shales. Further on lies a flat country covered by equally small-growing, scattered, deciduous trees. This flatland between Mkuyu Mt. and the long sandstone ridge at 5a, 5b lies at an average altitude of 1100 m and is crossed by small rivers running west towards the lake. Some of these rivers are bordered by a rather well-developed forest vegetation with a butterfly fauna that is similar to that of the forests to the north, though somewhat poorer in species.

Area 9a, 9b, east of 8a, 8b west of the Uwinza road, consists of rather high country of mesas and numerous gullies covered with more or less heavy woodland of a more robust character than further west. The rainfall is probably higher and the soil not so poor. The rivers are furnished with some forest, where it has not been destroyed by man. At present, people are only cultivating some places along the road and the vast area between this and the lake shore is devoid of roads and tracks and almost completely uninhabited, mainly due to poor soil, and partly to inaccessibility.

East of the Mpanda-Uwinza road. The country here has been very little explored. The western part consists mainly of sandstone formations and is hilly with steep gullies. The only section I have collected in, is along the Mpanda-Tabora road. The area is completely uninhabited and the only people who travel here outside the road, are occasional hunters and honey gatherers. Tsetse flies abound and water is scarce,

making this part of the country difficult for collectors.

Southern Mpanda and Rukwa. South of area 7 and east of the Rukwa escarpment are large sedimentary plains with savanna woodland and open grass, often flooded in the rainy season. There is no riverine forest as far as I have seen. It is a poor habitat for butterflies.

The Ufipa Plateau. This plateau culminates in the Liambalamfipa mountain chain crowning the steep escarpment, dropping down into the Rukwa depression. To the west, the plateau slowly descends towards Lake Tanganyika. The southern-most part of Ufipa is lower country dominated by smaller hills clothed with open woodland. In this southern area I have not collected so far. The high plateau is not so richly provided with permanent water sources as is the Mahale-Mweze-Sitebi area and there are only few forest remains. This is most certainly due to the early destruction of riverine vegetation and forest as a whole by the local inhabitants. Indeed, this is a situation which threatens the entire area, if the present rate of forest destruction is allowed to continue. The main forest remains are those at Mbizi Mt., near Sumbawanga and Mbuzi Mt. near Chala. The Chala Mt. itself, is sparingly clothed with riverine forest on top.

The areas in which comparatively thorough collecting has been done, are as follows (the best known areas first): 6, 3b, 3a, 5a, 5b, 1, 2a, 2b, 4a, 4b. Area 7 is little known, but has more or less the same ecology as the neighbouring areas 6 and 2b, with hardly any difference in the fauna. Areas 8 and 9 are both poorly collected, but 8 has recently been better explored and many new finds for Kigoma have turned up. The area north of 8 and 9 has been little examined by the writer except for the Gombe Stream National Park north of Kigoma. Ufipa has been investigated sporadically in the Chala and

Table 1. Composition of the butterfly fauna of Western Tanzania and its distribution over the different areas. Areas 7, 9a and 9b left out for reasons given in the text. U = Ufipa, G = Gombe; D = doubtful locality. For other explanation, see text.

Area	1	2a	2b	3a	3b	4a	4b	5a	5b	6	8a	8b	U	G	D
Papilionidae	17	15	12	17	13	14	11	16	17	13	16	16	10	9	
Pieridae	40	31	27	43	38	39	26	39	34	44	33	38	35	22	
Danaidae	7	5	3	7	4	7	3	8	6	3	8	7	3	3	
Satyridae	31	24	19	29	24	29	19	28	26	22	25	27	14	15	
Nymphalidae	119	83	52	111	75	116	52	135	102	82	122	123	49	76	1
Acraeidae	36	17	14	28	29	31	7	34	22	25	36	32	19	14	
Libytheidae	1	1		1	1	1		1	1	1	1	1		1	
Riodinidae	1														
Lycaenidae	98	64	43	118	82	76	29	109	120	115	90	109	67	54	3
Hesperiidae	81	57	32	84	68	67	22	75	91	88	54	78	42	52	2
Total	431	297	202	438	334	380	169	445	419	393	385	431	239	246	6

Sumbawanga area and also to some extent below the escarpment near Lake Rukwa. The number of species occurring in areas 2b and 4b cannot very well be compared with those of the other localities, as only sporadic collecting has been done here while walking through them to get to more interesting places. They are, however, certainly not so rich as most of the other localities. The distribution of the recorded butterfly fauna over the different areas is summarized in table 1.

Every species collected in Ufipa, at Gombe and in area 6 have been recorded, but I may have forgotten to make a note of some species observed in other areas. It is very difficult to remember each time all the species which has been taken in each locality, as very numerous safaris have been made.

GENERAL ECOLOGY

A great problem for the continued existence of the fauna of evergreen forests of western Tanzania is the old habit of the native population of shifting cultivation and their reluctance to use other habitats. It would be less serious if the forest vegetation grew up again after the cultivated land has been abandoned, but unfortunately, this

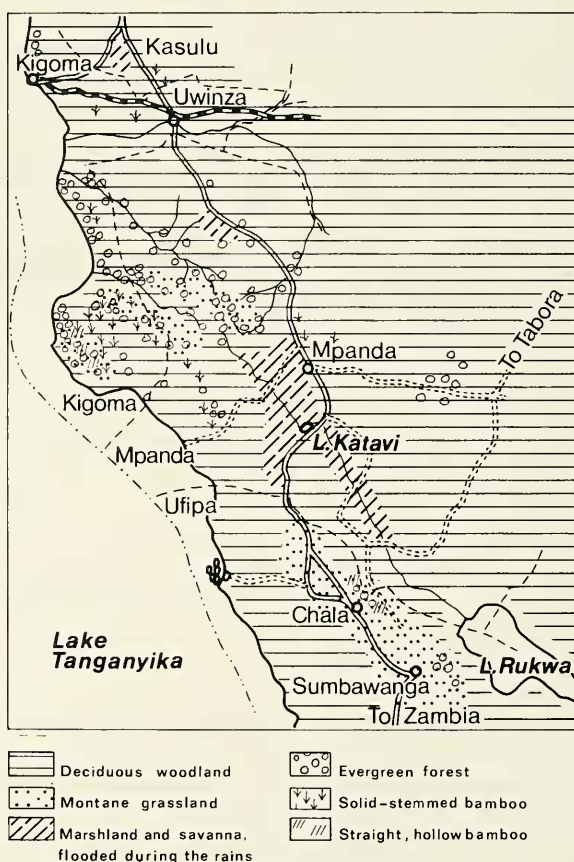


Fig. 3. Map of vegetation types. White areas along the lake shores are open or cultivated areas.

happens very seldom and only in certain circumstances. The only place where I have seen regrowth of evergreen forest is in the Mahale area, particularly in places where cleared farm land is surrounded by forest, and fire and elephant grass is prevented from getting in. Also the high humidity of the Mahale area stimulates forest growth.

It is generally presumed that the grass fires prevent the regrowth of forest vegetation. However, this is certainly not the only reason. During 20 years of observation in this area, I have had the opportunity to notice that a cleared forest area hardly ever returns to its original state. In a very short time it is covered by huge elephant grass. The only places where this may not happen, are the cleared areas surrounded by forest where the elephant grass more or less is prevented from intruding. Regrowth of forest also occurs in the higher altitudes of the Mahale ridge, from 2000-2500 m, which are far less suited for elephant grass than the lower altitudes and where the virility of the montane forest vegetation is stronger than that of the grasses.

When I first visited the Kabezi (1500-1600 m) at Lukandamira 20 years ago, that valley was covered by forest with only small cleared patches. Since then, a large part of the forest has been cleared and then left to bush. This area is now covered by enormous elephant grass and is moist all the year round. The greater part of this grassland is never burnt, but there is no sign of forest growth. This is not surprising. The root system of this particular grass covers the ground like a thick carpet and, in my opinion, must prevent any attempt of forest growth.

The comparatively great density of species of Lepidoptera in the western part of Tanzania, is mainly due to its earlier connection with rainforests of Zaire before the formation of Lake Tanganyika, and the influence of elements from north, south and east. Another favourable condition is the variation of environment (see Kielland, 1968). There are four main types of habitat, viz., forest, woodland, montane grassland and marshy ground (text-fig. 3).

Forest. The forest of Ufipa, Mpanda and Kigoma and for that matter the whole of Tanzania, is in no way of great extension. It consists of scattered remnants of evergreen, or rain forests. The largest remnant in western Tanzania is at Kasoge, at the foot of Mt. Kungwe. There are several types of evergreen forests:

1. Lowland forest: The low level forests of this region starts at just below 800 m which is the level of Lake Tanganyika. The upper boundary of low altitude forest of tropical Africa reaches approximately 1600 m. This boundary descends, if one moves away from the equator. In South Africa it reaches sea level just north of the Cape Province. The sylvan fauna of Western Tanzania is most abundant at 800-1000 m, and here most of the lowland forest species occur. From 1000 m the species density decreases slowly. At about 1300-1400 m a gradual change in the vegetation occurs and consequently, the lepidopterous fauna changes.

As I pointed out previously (Kielland, 1969) the lowland forests of the sandstone area north of the Luegele-Katuma rivers, differ markedly from those of the complex basement formations to the south. Through investigation, it was noted that a considerable number of butterflies common to the forests of the sandstone area, did not occur on the other geological formations or were very rare, and vice versa. Again, the lowland forests on the west side of the Mahale Mt. contained species of its own.

The similarity of a large part of the lepidopterous fauna to that of the lowland

forests of Zaire, suggests a similarity in the flora as well. This has lately been shown, to a certain extent, by the discovery of several plants of typical West African status in Western Tanzania.

2. Highland forest. The typical montane forest of the Mahale range, Sitebi Mt., Kakungu-Mweze highlands and the highland of the Ufipa plateau, commences at about 1400-1600 m after a gradual change of lowland forest. This intermediate stage from 1400-1600 m contains a mixture of both low and high level vegetation. Above 1600 m the lepidopterous fauna is markedly different and reduced in numbers of species and this reduction continues upwards.

The character of the montane forests is remarkably homogenous in the three districts, as is the case in the whole of Central Africa. They differ, however, in certain aspects. Very noticeable in the Ufipa montane forests (Mbizi forest, Chala forest) are the dominating, very large *Euphorbia*'s, while this particular species does not occur in the Mpanda-Kigoma area. At the Mahale ridge, above 1800 m, a large bamboo is associated with all the forests. The Mbizi and Chala forests do not contain bamboo, but in the forests of Mbuzi Mt. a hollow bamboo occurs, that is different from that on Mt. Mahale. There is some introduced bamboo at Sumbawanga.

A conspicuous tree of the Sitebi-Sifuta range above 1800 m is a *Podocarpus* species. (According to members of the Japanese expedition there are also a few *Podocarpus* on Mt. Mahale). Here also a long, extremely slender bamboo, quite distinct from that of Mahale abounds, from 1500 m upwards. Curiously enough, this species only occurs within a few square miles around the Sitebi Mt.

3. Dry evergreen forest. Apart from the above two types of evergreen forest, a third kind must be mentioned, which is encountered in a few places in Mpanda and Kigoma. It consists of a dryer kind of evergreen trees and large shrubs, often quite densely entwined with lianas. The canopy trees are much smaller than those of the common rain and riverine forests, and consists to a large extent of distinct species.

I have so far only encountered these evergreen thickets or forests in the sandstone formations. The best example is on the sandstone plateau just east of Uruwira, (see text-figs. 2 and 3). Here, these thickets are scattered over a flat area in pockets of up to a few hundred yards in diameter, surrounded by *Brachystegia* woodland. These dry evergreen forests have an affinity to the Zambezian "Mateshi" which is related to *Cryptosepalum* forest of that country and Angola (Cottrell, 1966). According to Cottrell, the Zambia dry evergreen forests probably harbour one species of butterfly endemic to this vegetation. So far, I have seen no indication of endemism in the dry evergreen forest of the Uruwira plateau, but the area is small and the existence of endemic species is not likely.

There are indications of a similar type of vegetation on the plateau near Mishamu on the Uwinza-Mpanda road. At Mihumu, between some of the numerous riverine forests, the whole area is clothed with semi-evergreen thickets and small trees, related to the *Cryptosepalum* forest. Also at Luntampa, in area 4a, isolated patches of similar dry evergreen forest occur. This is slightly inside the basic formations. The semi-evergreen vegetation contains comparatively few creepers and lianas and differs somewhat from the Uruwira forests.

The dry evergreen forests discussed above, are first of all the home of butterflies confined to a mixed habitat of forest and woodland. True forest species do not seem

to breed in this kind of vegetation.

Woodland. This type of habitat covers at least 90% of the three districts, Mpanda, Kigoma and Ufipa. It contains a large number (200-300) of tree species of deciduous character. The woodland is normally open, poor in lianas, but with a rich growth of grasses varying in height from 2 to 4 m or more in the savannas and valleys, to 30 cm high or so on the hills. At higher altitudes as at Sitwe, about 1600-1700 m, and Ufipa at 1700-1900 m, there is often a kind of deciduous vegetation of stunted trees and shrubs, of mostly the same species or species related to those occurring at lower altitudes, but much smaller.

On the Ufipa plateau there are some kinds of vegetation which do not occur in the Mpanda-Kigoma highland and vice versa. The butterfly fauna also differs to some extent.

The species density of butterflies in woodland is lower than in the evergreen forests. On the other hand, particular species are often more numerous and it is in the open country or woodland that we get most of the migratory species, which may occur in millions.

There is a pronounced seasonal variation in species, due to several factors, or several factors that influence each other. Every year most of the woodland grasses are burnt early in the dry season, in June-July. This provokes a sudden germination of flowering herbs of great variety and also the emergence of several species of Lycaenids which may breed on these plants or visit their flowers. These insects can be found for only one or two months, e.g. several species of *Lepidochrysops*, *Euchrysops* and *Aloeides*. After the rain starts in October-November and the grasses begin to grow, other short-lived species of Lycaenids emerge.

The great contrast of the dry and rainy seasons in woodland country, stimulates two distinctly different broods in a species, a wet and a dry season form (w.s.f. and d.s.f., respectively), sometimes so unlike each other as to be taken for two different species, such as: *Precis octavia sesamus* w.s.f. *natalensis* and *P. octavia sesamus* d.s.f. *sesamus*, many species of the Satyridae, particularly the genus *Bicyclus* and also the Pierid genus *Colotis*. This seasonal variation in species is far more pronounced in woodland than in true forest, because in the latter, the environmental condition is much more homogenous due to the heavy evergreen canopy which helps to keep the humidity fairly high, even in the dry season.

The woodlands of hills and savannas differ slightly. Certain species of trees, shrubs and grasses are found on the hills, while other types prefer the savannas. Many butterflies frequent the hills and are seldom or never met with down in the valleys and on the savannas. The following are some examples typical for *Brachystegia* clothed hills: *Lepidochrysops solwezii*, *L. anerius*, *L. parsimon*, *L. gigantea*, *L. dollmani*, *L. intermedia*, *Mimacraea marshalli*, *Cnodontes vansomeri* and *Precis touhilimasa*.

Although many butterflies occur in savanna country, very few, if any are really confined to this habitat. Nearly all are met with in other habitats as well.

Open montane grassland. There are numerous indications that this kind of grassland has developed in place of a former, much more extensive montane forest. The Ufipa plateau is by far the most extensive area of open montane grassland. This pla-

teau is comparatively densely inhabited by people engaged in both agriculture and cattle farming. By burning and clearing, the forest has greatly diminished in favour of open grass. Species typical for montane grassland are: *Euchrysops subpallida*, *E. messapus*, *Lepidochrysops mpanda*, *L. cupreus*, *Eicochrysops mahallakoaena*, *E. nandianas*, *Lycaena abbotii*, *Acticera stellata* and *Colias electo*.

On the high ridges of the Mahale Mt. open grassland has developed comparatively recently. This can easily be seen, as most of the grassy ridges still carry numerous scattered forest trees, in clumps or isolated, even in the most exposed places far away from the main forest.

The Lycaenid fauna is very poorly developed in this Mahale grassland. The genera *Spindasis*, *Lepidochrysops* and *Aloeides*, so well represented in the Sitwe-Mweze highland, are conspicuously absent here. The Sitwe-Mweze grass country is older and much more mixed with herbs and scattered, dwarfed, deciduous trees and shrubs which seem to be advancing into the grassland. The ridge of the Wanzizi hills is clothed with open grassland of the same character as that of Sitwe, but the Lycaenidae are not as richly represented, probably due to the area being much smaller and isolated from Sitwe.

Swamps. Only few butterflies, whose foodplant grow in water or mud, are confined to this type of habitat. The most common species seen in swamps and other wet places, near riverbanks etc., are *Ypthimomorpha itonia* and *Metisella midas*, both in high and low level swamps, *Mylothris bernice rubricosta* in low to medium altitude swamps, the less common *Syntarucus pulchra* along swampy lake shores and rivers and in the highlands of Ufipa; *Mashuna upemba* was taken on swampy ground.

For the area dealt with in the present work, there is no noticeable "short rainy season", as in the northern part of Tanzania. The rain normally starts in the middle of October to early November and carries on until late April to early May, with somewhat less rain in January-February, but seldom with more than two weeks pause in January. The Mahale Mt. enjoys higher rainfall than the surrounding areas and the rain often starts earlier and lasts longer, with scattered showers even in the dry season.

SYSTEMATIC PART

Family Papilionidae Subfamily Papilioninae

In continental Africa this subfamily is represented by two genera, viz., *Papilio* Linnaeus and *Graphium* Scopoli. In the area dealt with, 13 species of *Papilio* and 9 species of *Graphium* are known.

Papilio antimachus Drury, 1782. This species has not been taken so far, but I have good reason to believe that this giant occurs in the forests of the Sitebi mountain area of Mpanda. Observed and described by one of my African collectors.

Papilio dardanus dardanus Brown, 1776, with several female forms. A forest species, flying in most of the riverine forests of Mpanda and Kigoma. Record: All

the investigated areas, except very high mountains (800-1700 m).

Papilio jacksoni kungwe Cottrell, 1963. High level forests of Mpanda and Kigoma. Record: 1, 3a, 3b, 5a, 5b (1400-2200 m). General distribution: Ssp. *jacksoni* Sharpe, highland forest of Kenya and Uganda; ssp. *ruandana* Le Cerf, Kivu province of Zaire to Ruanda and western part of Uganda; ssp. *nyika* Cottrell, Nyika Plateau of Malawi; ssp. *hecki* Berger, Nioka in Zaire; ssp. *kungwe* is endemic to mountains of Mpanda and Kigoma.

Specimens differing from ssp. *kungwe* have been collected by me at Mbuzi Mt., Chulwe Mt. and Mbizi forest in Ufipa and by Carcasson in the Mbizi forest (1900-2200 m).

Papilio zoroastres joiceyi Gab., 1945. Forests of Kigoma and Mpanda. A fairly wide range in altitude. *P. zoroastres joiceyi* generally replaces *P. jacksoni* in lower altitude forests; however, this is only partly the case in our area. In the Wanzizi hills both species fly together at all levels where they occur, from 1400 m to the ridge at 1600 m. At Lukandamira, Mahale, ssp. *joiceyi* reaches the 1700 m level. Record: 1, 2a, 3a, 3b, 4a, 5a, 8a, 8b, Gombe (800-1700 m).

Papilio cynorta cynorta Fabricius, 1793. So far, the only Tanzanian records are from forests of the sandstone formations between Kigoma and south to Ntakkatta on the sandstone ridge, except for a single specimen taken at Kasoge. Record: 1, 5a, 8a, 8b (800-1400 m). General distribution: West Africa to Zaire and Uganda and an isolated race in Ethiopia.

Papilio nobilis Rogenhofer, 1891. One male taken at Mkulya riverine forest, a few taken at Kampisa and at Ntakatta. Record: 3a, 5a, 5b (1300-1700 m).

Papilio hesperus Westwood, 1843. Not uncommon in forests and at riversides of Mpanda and Kigoma. Rarely going up to 1500 m, as at Kampisa, and 1700 m near Mt. Sitebi. Record: 2a, 3a, 4a, 5a, 5b, 6, 8a, 8b (900-1700 m).

Papilio constantinus mweruanus Joicey & Talbot, 1927. One ♂ taken on the shore of Lake Tanganyika at Kibweza Point. At Ikola by T. H. E. Jackson's collector Watulege. Record: 1, 2b, observation at Gombe (780 m). General distribution: ssp. *constantinus* Ward, Kenya coast, Morogoro in Tanzania and Zambia; ssp. *monticolus* Le Cerf, Kenya Rift Valley at Kedong; ssp. *mweruanus* J. & Ta., Victoria Falls in Zambia.

Papilio mackinnoni Sharpe, 1891. Ssp. intermediate between ssp. *theodori* Riley and ssp. *benguella* R. & T. Local in montane forests of Mpanda and Kigoma. Taken in the Mweze forest, Wanzizi and at Kampisa. Record: 3a, 3b, 5b (1400-2000 m). General distribution: ssp. *theodori*, Nyika Plateau in Malawi; ssp. *mackinnoni*, Uganda and Kenya; ssp. *benguellae*, Rhodesia and Katanga.

Papilio phorcas congoanus Rothschild, 1896. ♀ forms *congoanus* and *thersandroides* Aur. Common in forests and heavy woodland of Mpanda and Kigoma. Record: widely distributed (800-1800 m).

Papilio nireus nireus Linnaeus, 1758. Common in forests and woodland of Mpanda, Kigoma and Ufipa, often visiting flowers in open grassland. Record: widespread (800-2000 m).

Note. Ssp. *lyaeus* Doubleday occurs in eastern and northern part of Tanzania.

Papilio bromius Doubleday, 1845. Ssp. *interjacens* Storace, and transition to *chrapkowskoides* Storace: common in forests of Mpanda and Kigoma; record: wide-

spread (800-2000 m). *Ssp. ufipa* Carcasson, 1960: montane forests of Ufipa only; record: Chala Mt., Mbizi Mt., Mbuzi Mt. (2000-2200 m). The author examined two males kindly presented by Prof. Lindroth from Lund University, Sweden, taken 9. v. 1951, at Milepa, Rukwa. This is at a much lower altitude.

Papilio demodocus demodocus Esper, 1798. Common in most habitats, but preferring woodland and open grassland. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, 9b and Chala to Sumbawanga in Ufipa, Gombe (800-2000 m).

Papilio ophidicephalus ophidicephalus Oberthür, 1878. Riverine forests of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, 9b and Chala in Ufipa (800-2000 m at Mahale).

Graphium ridleyanus White, 1843. Low level forests of Kigoma. Local. Record: 1 at Kasoge, 2a at Masaba, 4a, 8a, 8b and just south of Kigoma (800-1200 m).

Graphium angolanus angolanus Goeze, 1779. Savanna and woodland throughout Mpanda, Kigoma and Ufipa. Record: widespread (800-1700 m).

Graphium taboranus Oberthür, 1886. Savanna and woodland of Mpanda. Scarce in the western area, more common further east. Record: 5b, 6, 9a, 9b and west of Uruwira (1000-1600 m).

Graphium tynderaeus Fabricius, 1793. Riverine forest of Mkulya in Kigoma, close to boundary of Mpanda. Only one record, 1954 (1450 m). General distribution: Nigeria to the eastern part of Zaire, Ituri forest. The recorded specimen is the only one known from East Africa.

Graphium leonidas leonidas Fabricius, 1793. Common in woodland of Mpanda, Kigoma and Ufipa. Record: widespread (800-1700 m).

Graphium almansor kigoma Carcasson, 1964. Common in forests and forest margins of Kigoma as far north as Malagarazi river and the north-eastern part of Mpanda. One specimen was taken at Sibweza. This specimen is similar to the nominate race, but is probably the d.s.f. of *ssp. kigoma*. Record: 1, 3a, 4a, 5a, 5b, 6, 8a, 8b (800-1500 m).

Since Carcasson described *ssp. kigoma*, a large number of specimens has been collected throughout its range and they clearly show that *ssp. kigoma* is represented by two distinct forms, a d.s.f. and a w.s.f. As the description of *ssp. kigoma* was based on the w.s.f. (pl. 4 figs. 13, 14), it would seem appropriate to describe the d.s.f. here:

Graphium almansor kigoma Carcasson, dry season form (pl. 4 figs. 15, 16). Usually smaller, fore wing narrower and more incised at the distal margin; all white markings of fore wing considerably reduced, appearance rather similar to the nominotypical race. The white discal spot widely separated from the spot in 3 and not noticeably tapering towards costa, almost rectangular in shape; also the apical spot less tapering towards costa than in the w.s.f.; usually there is a small white spot near apex of cell. Hind wing pale median area much larger than in the w.s.f., reaching end of discoidal cell; distal margin very irregular and smudged; postdiscal and submarginal streaks absent, except for faint streaks in space 5. Fore wing spots in 1a and 1b and hind wing pale area creamy, not white as in the w.s.f..

Graphium almansor wranghami ssp. nov. Corresponds with *ssp. kigoma* Carc. and differs from *ssp. almansor* H. and *ssp. uganda* Lathy in the great difference between the two seasonal forms.

Wet season form (pl. 5 figs. 17, 18). All pale markings ochreous as in ssp. *uganda*, but inner cell spot of the fore wing closer to cubitus and the spot in 3, but not contiguous with it as in the w.s.f. of ssp. *kigoma*; the cell spot is divided into 3 or 4 spots, tapering towards costa, but much smaller than in the w.s.f. of ssp. *kigoma*; apical spots well developed, but slightly smaller than in ssp. *kigoma*; submarginal, internervular spaces paler than the ground colour. In other races there are no distinct paler areas of the submargin, apart from the white dots; spots in 1a and 1b as in ssp. *kigoma*. Hind wing pale median area narrow as in ssp. *kigoma*; distal margin irregular, but well defined and not smudged; a row of clearly defined, double discal streaks and a row of indistinct, submarginal streaks. In ssp. *uganda* the submarginal streaks are clearest, the discal ones are seldom developed at all. Size as in ssp. *kigoma*.

Dry season form (pl. 5 figs. 19, 20). Usually smaller; shape of fore wing narrower and more deeply incised at the distal margin as in the d.s.f. of ssp. *kigoma*; pale markings of all wings white; no paler submarginal areas apart from the very small white dots in 2 and 3; sometimes there is also a small discal spot in 2. The cell spot is contiguous and rectangularly shaped, almost reaching costa, but separated from cubitus and the spot in space 3. There is a clearly defined white dot near apex of the cell, that is missing in the w.s.f. Hind wing pale median area white, but otherwise as in the d.s.f. of ssp. *kigoma*, much wider than in the w.s.f. of ssp. *wranghami*; discal and submarginal streaks absent; sometimes there are traces of streaks in area 5. Underside pale area more whitish than in the d.s.f. of ssp. *kigoma* and the distal part of the wing grayer and not rufous as in *kigoma*.

Female unknown.

Habitat. Riverine forest and along the lake shore. Record: Gombe Stream north of Kigoma (800 m).

Holotype (w.s.f.): Tanzania, Kigoma, Gombe Stream Nat. Park, December 1972, J. Kielland. Paratypes (w.s.f.): Same data and collector, 5 ♂. Paratypes (d.s.f.): Same data 4 ♂.

I have the pleasure to dedicate this new race to Mr. Richard Wrangham, Ass. Director of Gombe Stream Research Station, who gave me accommodation and permission to collect in the Park area. Holotype and 2 paratypes in the National Museum, Nairobi, 2 paratypes in the British Museum (Nat. Hist.), London, and 5 paratypes in J. Kielland collection.

Graphium antheus Cramer, 1775. Forests, woodland and savanna throughout Mpanda and Kigoma. Record: widespread (800-1700 m).

Graphium polices Cramer, 1775. Forests and woodland of Mpanda and Kigoma. Very common in forests. Record: widespread (800 tot 1700 m).

Graphium porthaon tanganyikae ssp. nov. (pl. 6 figs. 21-24). Male: Differs from the east coast races in the darker ground colour, and in the reduced submarginal spots of the hind wing; in one ♂ there are no spots or only a very faint dot in space 2; in another, 3 submarginal spots in 2, 3, and 4. The distance from the discal long spot in 2 to the submarginal spot in 2 is greater than in the coastal races. The fore wing subbasal streak is constantly narrow and the submarginal streaks are straight. Female: Same differences as in the male. Underside darker; red and black markings better developed than in the coastal races. A very local race, flying sparingly in the forests of

Kasoge, Kefu, Mihumu and Mukuyu in Kigoma. Found in glades and flying along footpaths of low level forest. Record: 1, 8a, 8b (800-1000 m). General distribution: Ssp. *porthaon* Hew., Mozambique; form *vernayi* van Son, 1936, coastal Kenya and Tanzania, inland to Morogoro and Mikumi Nat. Park. There is very little difference between *porthaon* and *vernayi*.

Holotype ♂ . Tanzania, Kigoma, Kasoge, 27.x.1969, J. Kielland; Allotype ♀ : idem, but Kefu forest, 12.xi.1972. Paratypes: Tanzania, Kigoma, Kasoge, 2.xi.1969, J. Kielland, 1 ♂ , idem but November, 1969, 1 ♂ , idem, but Kefu, 12.iv. 1971, 10 ♂ . Holotype and allotype in the British Museum (Nat. Hist.), London, paratypes in J. Kielland collection.

Family Pieridae Subfamily Pierinae

Appias sylvia luvuensis Joicey & Talbot, 1927. Common in forests of Mpanda and Kigoma. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, 9a, 9b, Gombe (800-1500 m). Form *nyasana* Butler, 1896: forests of Mpanda and Kigoma, flying together with *luvuensis*.

Appias phaola phaola Doubleday, 1847. Forests of Kigoma at Mukuyu, Mihumu and Kefu near Helembe and upper part of the Ntakatta forest, in the sandstone area only. Record: 5a, 8a, 8b, Gombe (800-1000 m, 1500 m at Ntakatta).

Appias sabina sabina Felder, 1865. Forests of Helembe and at the sandstone ridge. Record: 1, 4a, 5a, 8a, 8b, Gombe (800-1600 m).



Fig. 4. Distribution of subspecies of *Belenois raffrayi* Sh.

Appias sabina udei Suffert, 1904. Forests of Mpanda and Kigoma, south of the sandstone ridge. Ssp. *udei* mixes with ssp. *sabina* at Luntampa and at Mahale; probably the two races meet there (800-1500 m).

Appias epaphia epaphia Cramer, 1779. Forests and woodland of Kigoma at Mukuyu and Kefu forest at Helembe. One specimen taken at Sibweza, April 1971, and one at Ntakatta. Rare. Record: 5a, 6, 8a, 8b (900-1500 m).

Belenois (Anaphaeois) gidica westwoodi Wallengren, 1853. Open country and woodland of Mpanda and Kigoma. Very common. Record: widespread (800-1700 m).

Belenois (Anaphaeois) creona severina Stoll, 1781. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Very common. Record: widespread (800-1600 m).

Belenois (Anaphaeois) aurota aurota Fabricius, 1793. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1700 m).

Belenois raffrayi similis ssp. nov. (pl. 7 figs. 25, 26). Male. Closest to ssp. *raffrayi* Obth. from Ethiopia and Sudan, from which it differs in the fore wing central white area, which is slightly more extended by reduction of the basal blue dusting and the apical black patch. The apex of the fore wing is slightly more pointed and outer margin a little concave at vein 3 and 4; in most specimens there is a submarginal blue spot in 7. Underside fore wing, white area extended to the black marginal line in internervular space in 1b, the outer part lightly sprinkled with grayish black scales; in most specimens the apical black area does not reach the discoidal cell, which is outlined in black. The specimens from the dry season have the distal black area in both wings more reduced.

Female. Hardly distinguishable from the nominotypical subspecies.

Habitat. Montane forests and forest margins of Mpanda and Kigoma.

Record: Mt. Sitebi-Ipumba-Ntakatta; Mweze Highland and Mt. Mahale (1500-2000 m) (text-fig. 4).

Holotype ♂ : Tanzania, Mpanda, Mt. Sitebi, 2000 m, 1.v. 1970, J. Kielland; Allotype ♀ : Same place and collector, 2.v.1970; Paratypes: Same, but from 1 to 3 May, 1970, 6 ♂, same, but Mt. Ipumba, 5 and 7.v.1970, 2 ♀; Kigoma, Mweze, August 1970, 1 ♀; Kigoma, Lukandamira, August 1970, 1 ♀; Sitebi, May 1970, 1 ♀; Sitebi, September 1970, 1 ♂; Mahale, August 1970, 1 ♂; Mweze, August 1970, 2 ♂. Holotype and allotype in National Museum, Nairobi, paratypes in the National Museum, Nairobi, the British Museum (Nat. Hist.), London and in J. Kielland collection.

Belenois zochalia agrippinides Holland, 1896, form *tanganyikae* Lanz, 1896. Open country and woodland of Mpanda, Kigoma and Ufipa. Common. Record: 3a, 3b, 5b, 6, 8a, 8b, Chala, Mbuzi Mt. (1000-1900 m).

Belenois crawshayi Butler, 1893. Open woodland and forest margins of Kigoma and Mpanda. Very common in the sandstone area, less common elsewhere. Record: 3a, 4a, 5a, 6, 8a, 8b (800-1400 m).

Belenois victoria Dixey, 1915. Rather common, but local in forests of Mpanda and Kigoma. The males gathering in numbers on wet sand. Female extremely rare. Record: 1, 3a, 4a, 5a, 5b (1100-1700 m).

Belenois subeida instabilis Butler, 1888. Woodland and savanna of Mpanda, Kigoma and Ufipa. Record: 3a, 3b, 4a, 5a, 5b, 6, Gombe, Chala (1000-1800 m).

Belenois calypso welwitschi Rogenhofer, 1889. Common in woodland of Mpanda,

Kigoma and Ufipa. Record: widespread (800-1700 m).

Belenois calypso butyroso Talbot, 1943. This race seems to be confined to forest and forest margins, while *welwitschi* occurs in open habitats and woodland. Kigoma in the sandstone area. Record: 8a, 8b (800-1000 m). General distribution: Forests of Uganda.

Belenois thysa thysa Hopffer, 1855, forms *macularia* Aur., 1910, and *alarmi* Sufert, 1904. Rather common in woodland and savanna of Kigoma and Mpanda. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m.)

Belenois rubrosignata kongwana Talbot, 1943. Woodland and savanna of Mpanda, Kigoma and Ufipa. Common. Record: 2a, 3a, 3b, 4a, 5a, 6, 8b, Chala, Gombe (800-1900 m).

Belenois theora concolor Aurivillius, 1898, and ♀ f. *sulfurea* Talb., 1943. Woodland and forest margins of Mpanda and Kigoma. Not common. Record: 3b, 4a, 5a, 6, 8a, 8b, 9b (900-1500 m).

Belenois solilucis Butler, 1874. Forests of Mpanda and Kigoma and northwards to Biharamulo and Geita. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 8a, 8b, Biharamulo, Gombe (800-1600 m). The Mpanda-Kigoma specimens approach the large W. African race. Specimens from Biharamulo and Geita are smaller and similar to the Uganda forms.

Dixeia dixeyi Neave, 1904. Two males from the Luntampa forest in Kigoma and one male from Mantena near Sibweza. Very rare. Record: 4a, 6 (ca. 1200 m).

Dixeia pigea pigea Boisduval, 1836. Chala in Ufipa. Record: Chala (ca. 1800 m).

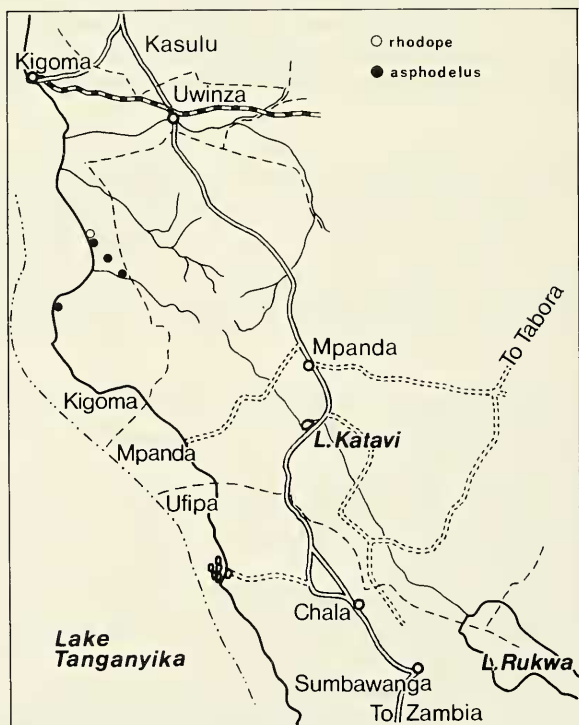


Fig. 5. Distribution of *Mylothris* species.

Dixeia pigea astarte Butler, 1899. Common in woodland and savanna of Mpanda and Kigoma. Record: 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6 (800-1700 m).

Mylothris dollmanni Riley, 1921. One male taken at Chala in Ufipa, August 1973. A rare species. Record: Chala (1800 m).

Mylothris chloris agathina Cramer, 1779. Woodland, savanna and forests of Mpanda, Kigoma and Ufipa. Very common. Record: Widespread (800-2000 m).

Mylothris citrina Aurivillius, 1898. Recorded by T. H. E. Jackson. Taken by his African collector, Watulege, at Mahale Mt. Not seen by the present author. Record: 1. Altitude not specified.

Mylothris poppea rhodesiana Riley, 1921. Woodland, savanna and forest margins of Mpanda, Kigoma and Ufipa. Rather common. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, Chala, Mbuzi Mt. (1000-2000 m).

Mylothris sulphurea basalis Aurivillius, 1907. One male taken in the Kasha forest near Kefu, January 1973. Record: 8b (1000 m). There is one female from Katanga in the National Museum, Nairobi. The species also occurs in eastern Tanzania.

Mylothris rhodope rhodope Fabricius, 1775 (text-figs. 5, 9). Kefu forest at Helembe, Kigoma Distr. Very local, but common at Helembe. Record: 8b (900 m). General distribution: W. Africa to Zaire, ssp. *rhodope*; Uganda and Kenya, ssp. *uniformis* Talbot, 1944.

Mylothris asphodelus Butler, 1888 (text-figs. 5, 10). Local. In the Kasoge forest, Luntampa and forests around Helembe. Record: 1, 4a, 8b (800-1200 m).

Mylothris spec. (text-figs. 8, 11). One female very similar to females of *hilara* Karsch was taken in a riverine forest at Mihumu, one male taken in the Kefu forest. There is another female in the National Museum, Nairobi, from Mukuyu taken by the Japanese expedition. Record: 8a, 8b (900 m). Probably a new species.

Mylothris ertli Suffert, 1904, stat. nov. (*Mylothris yulei* Butler, 1897, ssp. *ertli* Suffert 1904) (text-figs. 7, 11). Common at Kampisa, Mt. Sitebi and upper reaches of the Katuma river. Also taken at Mt. Mahale, Luntampa forest and Ntakatta. Record: 1, 4a, 5a, 5b, Gombe (1200-2000 m).

Differs from *M. yulei* in a much better developed apical patch on fore wing upper-side; a slightly more extended and stronger basal yellow area in both wings; underside apical area of fore wing and entire hind wing with more or less strong yellow suffusion; the marginal spots better developed in both wings. The female has less strong, but more extended yellow basal patch on the wings and more rounded wings than the male.

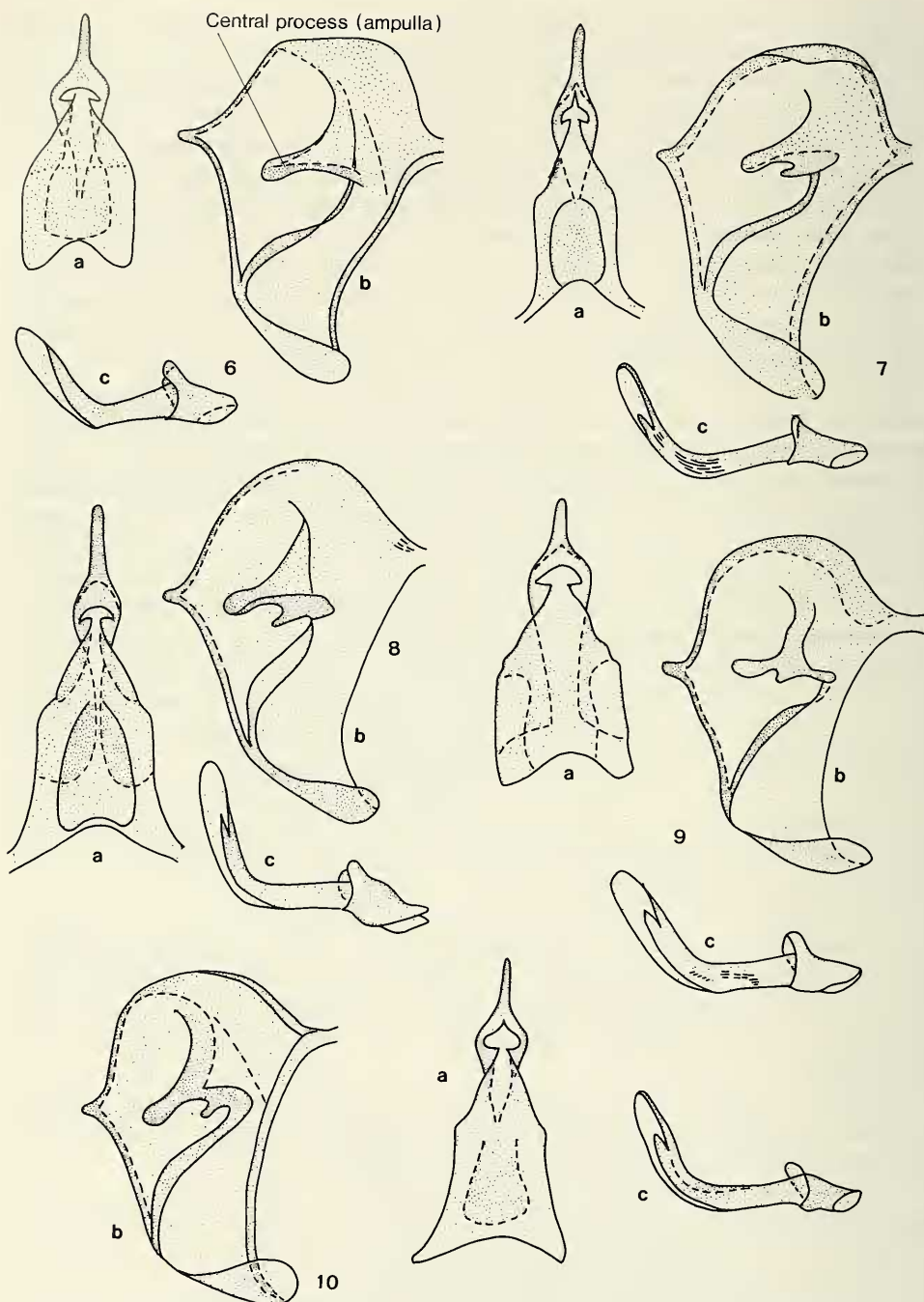
Genitalia ♂: Tegumen-uncus longer and narrower than in *M. yulei*; aedeagus slightly more slender; valva differs in having a double central process (ampulla), a smaller lobe is attached ventrally to the large lobe, in *M. yulei* the process is single.

The double lobed ampulla is characteristic for the *M. rhodope* group and would suggest that *ertli* is more closely related to this group than to *M. yulei*.

Mylothris yulei yulei Butler, 1897 (text-figs. 6, 11). Common in forest margins of Kigoma and Mpanda. Record: widespread (800-1800 m).

The *Mylothris rhodope*—*yulei* group is very complex and highly in need of revision.

Mylothris sagala narcissus Butler, 1888. Montane forests of Mpanda, Kigoma and Ufipa. Record: 1, 3a, 3b, 4b, 5b, Mbizi forest, Chala Mt., Mbuzi Mt. (1500-over 2200 m). Specimens from Mahale, Sitebi and Ufipa differ from each other and



Figs. 6—10. Male genitalia of *Mylothris* species. a, tegumen-uncus; b, valva; c, aedeagus. 6. *M. yulei* Butl., Kampisa, Mpanda, no. 1048. 7. *M. ertli* Suffert, Ujamba, Mahale, Kigoma, no. 1167. 8. *M. spec.*, Kefu forest, Helembé, Kigoma, no. 1031. 9. *M. rhodope* F., Kefu forest, Kigoma, no. 1019. 10. *M. asphodelus* Butl., Kefu forest, Helembé, Kigoma, no. 1027.

may constitute separate races. There is some variation in the female signa.

Mylothris bernice rubricosta Mabille, 1890. Along rivers and on swampy ground of Mpanda, Kigoma and Ufipa. Common. Record: 2a, 2b, 5b, 6, Chala (800-1700 m).

Leptosia medusa marginea Mabille, 1890. Forests of Mpanda and Kigoma. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 6, 5a, 8a, 8b, 9b, Gombe (800-1500 m).

Leptosia wigginsii Dixey, 1916. Forests of Kigoma from Malagarazi to Luegele rivers. Rather common. Record: 2a, 3a, 4a, 5a, 8a, 8b (800-1200 m). General distribution: Uganda.

Leptosia alcesta alcesta Stoll, 1782. Forests and heavy shrubs and woodland of Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 3b, 5a, 6, 9b (800-1200 m).

Leptosia nupta Butler, 1873. Very common in the Ntakatta forest. Also taken sporadically at Kefu and at Kasoge. Record: 1, 5a, 8b (800-1600 m).

Leptosia hybrida Bernardi, 1951. One female taken in the Kefu forest in Kigoma. Record: 8b (900 m). General distribution: From W. Africa to Zaire and Uganda. The author has also collected this species in the Ngara District of north-western Tanzania.

Pinacopteryx eriphia eriphia Wallengren, 1857. Open habitats and savannas of Ufipa, Mpanda and Kigoma. Uncommon. Record: 2a, 4a, 6, 8b, Chala, Sumbawanga (900-1900 m).

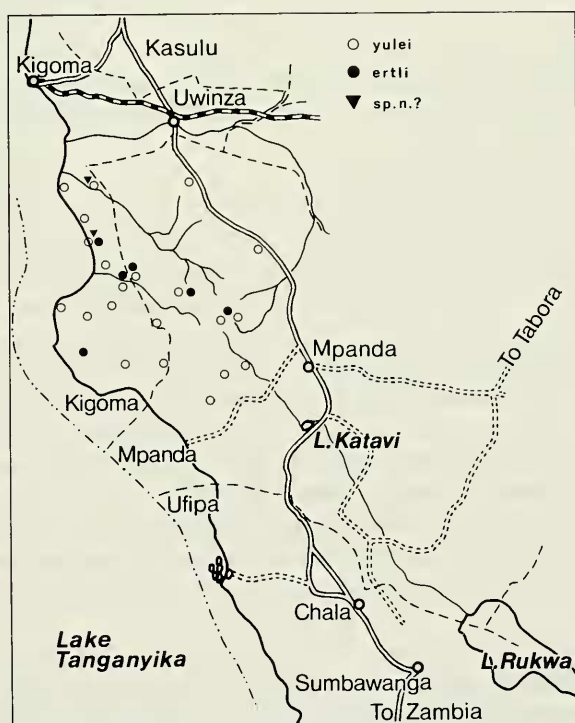


Fig. 11. Distribution of *Mylothris* species.

Subfamily Teracolinae

Colotis calais (?) *crowleyi* Sharpe, 1898. Open habitats and savanna of Mpanda and Ufipa. From northern Mpanda at Sibweza, one specimen only. In the Rukwa depression and Ufipa very common. Record: 6, Mpimbwe, Rungwa near Lake Rukwa (800-1200 m).

Colotis aurigineus aurigineus Butler, 1883. Open habitats of Ufipa and Mpanda in the south. Record: Chala, Sumbawanga, Rukwa basin (800-2000 m).

Colotis vesta mutans Butler, 1877. Open habitats of Ufipa and Mpanda in the south. Record: Chala, Mpimbwe, Sumbawanga, Rungwa (800-1700 m).

Colotis celimene anima Hewitson, 1862. Woodland and open habitats of Ufipa and Mpanda. Rare. Record: 2b, 6, Chala (800-1700 m).

Colotis ione Godart, 1819. Savanna of southern Mpanda. One male only, October 1970. Record: Mpimbwe (ca. 900 m).

Colotis regina Trimen, 1863. Woodland of Mpanda. Kigoma and Ufipa. Common. Record: 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Chala (800-1600 m, 1800 m at Chala).

Colotis hetaera Gerstaecker, 1871. One record from Nkungwe, 1955, and one from Sibweza, 1971. Record: 6 (1100-1200).

Colotis elgonensis nobilis Carcasson, 1960. Forests and forest margins of Mpanda and Kigoma. One record from Mbuzi Mt., Ufipa. Not uncommon in the two first areas. Record: 1, 3a, 3b, 5a, 5b, Mbuzi Mt. (1300-2200 m). Rather high altitude species.

Colotis hildebrandti Staudinger, 1885. Open habitats and woodland of Mpanda and Ufipa. Not common. Record: 1, 2b, 4b, 5b, 6, Chala (900-1700 m).

Colotis danae annae Wallengren, 1857. Woodland of Mpanda, Kigoma and Ufipa. Not very common. Record: 2a, 2b, 3a, 3b, 4a, 4b, 6, 7, Chala, Rukwa basin (800-1700 m).

Colotis eucharis incretius Butler, 1881. Woodland and savanna of Mpanda and Kigoma. Common. Record: 2a, 2b, 3a, 3b, 4a, 4b, 6, 7 (800-1400 m).

Colotis antevippe zera Lucas, 1852. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Common. Record: widespread in Mpanda and Kigoma, Chala in Ufipa (800-1900 m).

Colotis evenina xantholauca Sharpe, 1904, d.s.f. *xantholauca*, w.s.f. *sipylus* Swin., 1884. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Chala, Rukwa basin, Gombe (800-1800 m).

Colotis evippe omphale Godart, 1819. Open habitats and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1900 m).

Colotis pallene Hopffer, 1855. Recorded from 35 miles north of Mbeya.

Colotis evagore antigone Boisduval, 1836. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Common. Record: 3a, 3b, 4b, 6, Chala, Rukwa basin (800-1800 m).

Colotis eris eris Klug, 1829. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Common. Record: widespread (800-1800 m).

Colotis subfasciatus ducissa Dognin, 1891. Open habitats and woodland of Mpanda and Kigoma. Common. Record: 3a, 3b, 4a, 4b, 5b, 6, 8a, 8b (800-1300 m).

Eronia cleodora cleodora Hübner, 1822. Savanna-like woodland in Mpanda at Nkungwe and Mpanda township. Rare. Record: 6 (1000-1200 m).

Eronia leda Boisduval, 1847. Woodland and forest of Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6 (800-1600 m).

Nepheronia pharis Boisduval, 1836. Forests of Kigoma in the sandstone area only, north of Mugombazi. Record: 8a, 8b at Mukuyu, Mihumu, Helembe forests (800-1000 m).

Nepheronia thalassina Boisduval, 1836. Forest and woodland of Mpanda and Kigoma. Rather common. Record: widespread, 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, (800-1700 m).

Nepheronia argia argia Fabricius, 1775. Forests and dense woodland of Mpanda and Kigoma. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1800 m).

Subfamily Coliadinae

Colias electo pseudohecate Berger, 1940. Open grassland on mountains of Ufipa, Mpanda and Kigoma. Common. Record: 1, 3a, 5a, 5b, Chala to Sumbawanga (1500-2300 m).

Catopsilia florella Fabricius, 1775. Almost any habitat of Mpanda, Kigoma and Ufipa. Record: everywhere (800-2200 m).

Eurema hecabe senegalensis Boisduval, 1836. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Common. Record: widespread (800-2000 m).

Eurema brenda Hewitson, 1847. Heavy woodland and forest of Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-2000 m).

Eurema brigitta brigitta Cramer, 1780. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Chala, Gombe (800-2000 m).

Eurema hapale Mabille, 1885. Forest and swampy ground of Mpanda, Kigoma and Ufipa. Very common. Record: widespread (800-2000 m).

Eurema desjardinsii regularis Butler, 1876. Very common in woodland, savanna and forest margins of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m at Mt. Sitebi). In my opinion *E. mandarinula* Holland, 1892, is a form of *E. desjardinsii*, restricted to lower altitudes.

Eurema punctinotata Butler, 1895. Forests and open habitats of mountains in Ufipa and Kigoma. Record: 1 at Mahale Mt.; Mbizi forest in Ufipa; local (1700-2200 m). *E. punctinotata* is found only in the more humid, high altitudes above 1600 m. There is no great difference between dry and wet season forms.

Family Danaidae

Danaus chrysippus Linnaeus, 1758. Forms *chrysippus*, *alcippus* Cramer, 1777, *do-rippus* Klug, 1845, and *albinus* Lang, 1896. Common and widespread everywhere in open and wooded habitats. Record: widespread (800-2200 m).

Danaus limniace petiverana Doubleday & Hew., 1847. Forest and woodland throughout Mpanda, Kigoma and Ufipa. Record: everywhere except high mountains (800-1600 m).

Danaus formosa formosa Godman, 1880. Forests of Kigoma and Mpanda. Also met with in open habitats. Record: 1, 5b, 8a (800-2000 m). In the Mahale area it is found at both low and high altitudes. Up to 1000 m at Mukuyu and Mihumu. In the Sitebi Mt., only taken at 1900-2000 m.

Amauris niavius niavius Linnaeus, 1758. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 8a, 8b, 9b, Gombe (800-1600 m).

Amauris tartarea tartarea Mabille, 1876. Forests of Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Amauris egialea mukuyuensis Carcasson, 1964. An uncommon species, in forests of Kigoma. Record: 1, 3a, 4a, 5a, 8a, 8b (800-1200 m, 1600 m at Lukandamira).

Amauris echeria mpala Talbot, 1940. Mahale area in Kigoma, Mweze and Kampisa in Mpanda. In forests. Common. Record: 1, 2a, 3a, 4a, 5a, 5b (1200-2000 m).

Amauris albimaculata magnimakula Rebel, 1914. In the Mihumu forest of Kigoma. Very rare. Record: 8a (ca. 900 m).

Amauris crawshayi oscarus Thureau, 1903. A rare species in forests of Mpanda and Kigoma. Record: 5a, 8a, 8b (900-1500 m).

Amauris ansorgei junia Le Cerf, 1920. Rather common in the Mbisi Forest, Ufipa (2000-2300 m), February 1978.

Family Satyridae

Melanitis leda africana Frühstorfer, 1908. Very common in woodland of Mpanda and Kigoma. Record: widespread (800-1500 m, 2000 m at Ujamba, Mahale).

Melanitis libya Distant, 1882. Forests and woodland of Mpanda and Kigoma. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, 9a, 9b (800-2200 m). Common at Mahale and surrounding areas. Further east more scarce in the lowland, but plentiful at high altitudes. At high altitude of Mahale flying exclusively in the bamboo mixed forest.

Melanitis parmeno parmeno Doubleday & Hewitson, 1851. Common in forests of Mpanda and Kigoma. In Mpanda mainly at higher levels, in Kigoma common at all altitudes. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, at Kigoma (Miss Goodall) (800-2000 m). General distribution ssp. *parmeno*: Uganda, Ghana, Angola.

Melanitis chelys Fabricius, 1793, forms *chelys* and *minchini* Heron, 1909. Common in dense forests of Kigoma and Mpanda. Record: 1, 4a, 5a, 8a, 8b (800-1600 m).

Bicyclus sebetus sebetus Hewitson, 1877. Dense, low level forest of Kigoma and Mpanda in the north-west. Record: 1, 3a at Lubalizi, 4a at Luntampa, 5a at Ntakatta, 8a, 8b (800-1400 m). Very common at Kasoge and in the sandstone area. Elsewhere scarce.

Bicyclus sambulos Hewitson, 1877. Ssp. intermediate between ssp. *sambulos* and ssp. *cyaneus* Condamin, 1961. Forests of Kigoma. Not rare in the Kasoge and Kefu forests. Elsewhere scarce. Record: 1, 3a, 4a, 5a, 8a, 8b (800-1400 m). General distribution: Uganda and Zaire.

Bicyclus mandanes Hewitson, 1876. Common in forests of Kigoma and Mpanda to Biharamulo Distr., Kahama Distr. Record: 1, 2a, 3a, 4a, 5a, 8a, 8b, Biharamulo and Kahama Districts (800-1700 m).

Bicyclus auricrudus fulgidus Fox, 1963. Common in forests of Kigoma. Flying together with *B. mandanes*. Record: 1, 2a, 3a, 4a, 5a, 8a, 8b, Gombe (800-1500 m). General distribution: Zaire to Uganda and Kenya; ssp. *auricrudus* in Nigeria.

Bicyclus mesogena uganda Riley, 1926. In the Kasoge forest only. Record: 1 (800-1000 m). General distribution: Uganda and Kenya.

Bicyclus sandace Hewitson, 1877. Forests of Kigoma and Mpanda. Sometimes also in heavy woodland. Common. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Kibondo, Gombe (800-1700 m). General distribution: Nigeria, Zaire to Uganda.

Bicyclus jefferyi Fox, 1963 (= *addendus* Cond. & Fox, 1964, = *miriam* Fab., 1793). Forests, riversides and heavy woodland of Mpanda and Kigoma. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b (800-1800 m, 2000 m at Mt. Sitebi).

Bicyclus safitza Westwood, 1850. Almost any wooded habitat and forest of Mpanda, Kigoma and Ufipa. Record: widespread (800 to 1800 m).

Bicyclus campus campus Karsch, 1893. Forest and woodland of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8b (800-2000 m).

Bicyclus dentata Sharpe, 1898. Montane forests of Mpanda and Kigoma. The Mahale Mt. and the Sitebi-Ipumba range. Locally very common. Record: 1, 5b (1500-2200 m).

Bicyclus cooksoni Druce, 1905. Forest and woodland of Mpanda, Kigoma and Ufipa. Rather common. Record: 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Chala (1000-1800 m). General distribution: Zambia, Katanga.

Bicyclus cottrelli cottrelli van Son, 1952. Common in woodland and forest in Mpanda and Kigoma. Record: 3a, 3b, 4a, 5b, 6, Gombe (1000-1500 m). General distribution: Zambia to Kahama in Tanzania.

Bicyclus ena Hewitson, 1877. Woodland of Mpanda and Kigoma. Not common. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8b, 9a, 9b (800-1700 m).

Bicyclus angulosus selousi Trimen, 1895. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8b, Chala, Gombe (800-2000 m). Some specimens are transitional to ssp. *angulosus*.

Bicyclus campinus campinus Aurivillius, 1901. Woodland and forest of Mpanda and Kigoma. Mainly lower altitudes. Record: 1, 2a, 2b, 3a, 3b, 4a, 6 (800-1500 m).

Bicyclus vansonii Condamin, 1965. Very common in woodland and forest margins of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, 9b, Chala, Gombe (800-2000 m).

Bicyclus anynana anynana Butler, 1879 (= *vicaria* Thurnau, 1903). Common in woodland of Mpanda and Kigoma. Record: all investigated areas in Mpanda and Kigoma (800-1600 m).

Bicyclus vulgaris Butler, 1868. Common in forests and woodland of Mpanda and Kigoma. Record: 1, 2a, 3a, 4a, 5a, 5b, 8a, 8b, 9a, Gombe (Miss Goodall) (800-1500 m). General distribution: Uganda.

Bicyclus funebris funebris Guérin, 1844, d.s.f. *nebulosa* Felder, 1867, w.s.f. *agraphis* Karsch, 1893. Common in forests and heavy woodland of Kigoma and north-western part of Mpanda. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 8a, 8b, Gombe (800-1500 m).

1700 m at Lukandamira). The southern-most record is the Wanzizi Hills.

Bicyclus saussurei saussurei Dewitz, 1879. Taken in a riverine forest near Kibondo. One male only. General distribution: Uganda, Katanga, Zambia, and Ngara Distr. of Tanzania.

Bicyclus similis Condamin, 1963. Dry and wet season forms taken in the Mahale mountain area. First taken by T.H.E. Jackson's African collector, Watulege. Record: 1(1600-2300 m). This species is endemic to the Mahale area and no trace of it has been found outside this mountain. It is common at high levels, becoming rarer down to 1600 m.

Henotesia perspicua Trimen, 1873, w.s.f. *perspicua*, d.s.f. *maevius* Staudinger, 1887. Very common in woodland and savanna of Mpanda and Kigoma. Also Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, 9b, Chala, Gombe (800-2000 m).

Henotesia simonsii Butler, 1877, w.s.f. *victorina* Westwood, 1881, d.s.f. *simonsii*. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1800 m).

Henotesia spec. Common, but confined to the Mahale area at high elevations. Frequents montane forests and forest margins. Wet and dry season forms occur. Record: 1 (1500-2200 m). The description of this new species may be undertaken later on, as a revision of the whole genus is needed. It is closely related to *H. ubenica* Thureau, 1903, but the genitalia differ. A species with similar genitalia occurs at Kitcheche and Ankole — Toro, Uganda. However, this seems to constitute a separate race, distinct from the Mahale population. Specimens similar to the Uganda form have been taken at Ngara in northeast Tanzania by the present author.

Aphysoneura pigmentaria latilimba Le Cerf, 1919. Forests and forest margins of Mpanda, Kigoma and Ufipa. High altitude species. Common, but local. Mainly in bamboo country. Record: 1, 5a, 5b, Mbizi forest, Chala, Mbuzi Mt. (1400-above 2000 m).

Physcaenaura pione Godman, 1880. Common in woodland and savanna of Mpanda and Kigoma. Wet season only, from late December to April. Record: 2b, 3a, 3b, 4a, 4b, 6 (800-1300 m).

Neita victoriae Aurivillius, 1898 (= *Neocoenyra victoriae* Aur.). Occurring in woodland at Sibweza, Mpanda Distr. Also taken near Uwinza and at Biharamulo north of Kibondo. Uncommon. Record: 6, 9a, Biharamulo (1050-1400 m).

Neocoenyra Butler, 1885.

This genus is represented by two or three *gregorii*-like species in this area. One is *N. kivuensis* Seydel, 1929, described from Kivu in Zaire. The genitalia in this genus are of the "grayhound" type and the species are very difficult to separate from each other. The whole genus is in need of revision.

Ypthima Hübner, 1818.

At present the writer makes a special study of this genus and a revision of the continental African group will be submitted later. For the time being the following species from western Tanzania are briefly listed.

Ypthima granulosa Butler, 1883 (= *cataractae* van Son, 1955). Occurring at Kasulu and at Mihumu. Record: 8a, Gombe, Kasulu (900 at Mihumu, 800-1200 at Gombe, not certain at Kasulu).

Ypthima impura Elwes & Edwards, 1893. Very common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4b, 5a, 5b, 6, 8b, Sumbawanga, Chala, Gombe (800-1800 m).

Ypthima pupillaris Butler, 1888 (= *gazana* van Son, 1955). Common in *Brachystegia* woodland and savanna of Mpanda, Kigoma and Ufipa. Preferring higher altitudes. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, Chala, Sumbawanga (1100-2000 m).

Ypthima albida albida Butler, 1888. One male taken at a small river just north of Kibondo. Common at Bukoba and Ngara. Record: Kibondo.

Ypthima rhodesiana Carcasson, 1964. Common in woodland and savanna of Mpanda and Kigoma. Record: 2a, 3a, 3b, 4b, 5b, 6, 8a, 8b (1000-1500 m).

Ypthima antennata van Son, 1955. In rocky places and grassland of the Sitebi Mt. and near Uwinza. In sandstone area only. Record: 5a, 5b, Uwinza (1200-2000 m).

Ypthima spec. Savanna and woodland of Mpanda, Kigoma and Ufipa, in the Rukwa basin and at Chala. Record: 2a, 3a, 3b, 4a, 4b, 6, 8a, 8b, Kansindi near Usewia, Rukwa basin, Chala, Mbuji Mt. (800-1200 m, 2000 m in Ufipa). This new species will be described in another paper.

Ypthimomorpha itonia Hewitson, 1865. Common in savannas, particularly swampy places and riversides of Mpanda, Kigoma and Ufipa. Record: widespread (800-1800 m).

Mashuna upemba Overlaet, 1955. Two males and one female were taken flying low over marshy ground near Chulwe Mt. in Ufipa. Record: Chulwe Mt. (ca. 1900 m). General distribution: Upemba Park in Katanga and Angola Highland.

Family Nymphalidae Subfamily Charaxidinae

Euxanthe crossleyi ansorgei Rothschild & Jordan, 1900. Widespread, but not very common. In forests and along rivers of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m). General distribution: Nigeria to Uganda and western Kenya.

Charaxes varanes vologeses Mabille, 1876. Common in open woodland and savanna of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Chala, Gombe (800-2000 m).

Charaxes fulvescens monitor Rothschild, 1900. Very common in forests and riverine thickets of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-2000 m).

Charaxes acuminatus Thureau, 1903. Observed at Mbuji Mt. in Ufipa (2000 m).

Charaxes candiope candiope Godart, 1824. Common in forests and riverine forests of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Mbuji Mt., Gombe (800-2000 m).

Charaxes protoclea Feisthamel, 1850; ssp. *azota* Hewitson, 1877; ssp. *catenaria* Rousseau-Decelle, 1934. In the Mpanda area this species occurs commonly on *Brachystegia* clothed hills. In the better forested areas further north, as in Kigoma area, it is mostly a forest dweller and is seldom met with in woodland. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe, Ufipa at foot of escarpment (800-

1700 m, 2000 m at Mt. Sitebi). Specimens agree with both races and must be regarded as transitional.

Charaxes boueti macclouni Butler, 1895. Exceedingly common in areas with bamboo, the larval foodplant, but also taken at Sibweza more than 10 miles from nearest bamboo growth. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Namanyere and Chala in Ufipa (800-2000 m). The high level Mahale specimens are larger and brighter than those in the lowland.

Charaxes cynthia mukuyu van Someren, 1969. This race is endemic to the area between Burundi and the sandstone ridge at Ntakatta. Fairly common at Mihumu, but extremely scarce elsewhere. Record: 5a, 8a, 8b (800-1500 m). General distribution: Other races from eastern Kenya, Uganda across central Africa to Ivory Coast.

Charaxes lucretius maxima van Someren, 1971. Very common in the Kasoge forest, very rare elsewhere. Record: 1, 3a, 4a, 5a, 8a, 8b, Gombe (800-1400 m).

Charaxes jasius saturnus Butler, 1865. Common in open woodland and savanna of Mpanda, Kigoma and Ufipa. Seldom met with in forest. Record: widespread (800-2000 m).

Charaxes castor castor Cramer, 1775. Common in open woodland and forests of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 8a, 8b, Gombe (800-2000 m).

Charaxes castor flavifasciatus Butler, 1876. In the Rukwa valley in Ufipa and South Mpanda. Record: Muze (ca. 1000 m). Ssp. *flavifasciatus* probably merges with ssp. *castor* further north.

Charaxes brutus natalensis Staudinger, 1886. Widespread, but not very common in Mpanda and Kigoma. Preferring forest but one specimen also taken in open woodland at Nkungwe. Record: 1, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Charaxes ansorgei kungwensis van Someren, 1967. Very rare. Records from the montane forests of Mt. Mahale only. Record: 1 (2000-2200 m). During 14 trips to the Mahale Mt., only a few males and one female were obtained in banana traps. Most were taken at the remote Sisaga Mt. General distribution: Other races from Kenya to Uganda, at the northern end of Lake Tanganyika and Northern Malawi. From Tanzania, races have been recorded from Kilimanjaro, Usambara, Uluguru and Njombe to Mbeya. Ssp. *kungwensis* was first taken by T. H. E. Jackson's collector Watulege.

Charaxes ansorgei ufipa ssp. nov. (pl. 8 figs. 27-30). Male. Upperside discal band of fore wing rather narrow and with outer border straighter and less incised at the veins than in other races, much less than in ssp. *kungwensis* van Som. and ssp. *levicki* Poult. (the latter comes from Southern Highlands in Tanzania). The discal band is not as dark as that of ssp. *levicki*, but slightly darker than in ssp. *kungwensis*; basal area as dark as that of ssp. *levicki*, slightly darker than in ssp. *kungwensis*. Hind wing submarginal spots well developed in 4 to 7, but no spots in 2 and 3. In the nominotypical race, which it otherwise rather closely resembles, the hind wing submarginal spots are faint, but present also in 2 and 3, except for one specimen in the National Museum, Nairobi. Length of fore wing: 41 mm.

Female. Differs from ssp. *kungwensis* in a darker brown, basal area of the fore wing; the creamy, discal band is broadening towards the hind margin, not parallel in area

1 and 2 as in ssp. *kungwensis*; the shape of the fore wing is more falcate and the outer margin less concave. Hind wing with pronounced submarginal spots in 5 to 7; the green marginal stripe at tornus is hardly discernible. Underside wings as ssp. *kungwensis*.

Habitat: Montane forests of Mbuzi Mt. in Ufipa.

Holotype ♂ : Tanzania, Ufipa, Mbuzi Mt., 2000 m, October 1971, J. Kielland. Allotype ♀ : Same, but May 1972; Paratypes: 1 ♂ and 1 ♀ May 1972; 1 ♂ October 1971.

Holotype and allotype are deposited in the National Museum, Nairobi, paratypes in J. Kielland collection.

Charaxes pollux pollux Cramer, 1775. In riverine forests of Mpanda and Kigoma. Rather common. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-2000 m).

Charaxes druceanus proximans Joicey & Talbot, 1922. Not common and local in open country and forest margins of Mpanda, Kigoma and one record from Ufipa. Record: 1, 2a, 3a, 4a, 5a, Gombe, Mbuzi Mt. (1200-2000 m).

Charaxes eudoxus mechowi Rothschild, 1899 (according to M. Plantrou). Taken in banana traps at Mihumu, Kasoge, Luntampa, Ntakatta and Kampisa forests. Rather rare and local. Record: 1, 3a, 4a, 5a, 5b, 8a, 8b, Biharamulo (800-1500 m). General distribution: Zaire to Uganda and Kenya. Also taken in Zambia.

Charaxes numenes aequatorialis van Someren, 1972. Very local in low level forests of Kasoge, Luntampa, Lubalizi, Mukuyu, Kefu, Ntakatta and Mihumu. Not taken south of Lubalizi. Record: 1, 3a, 4a, 5a, 8a, 8b, Gombe (800-1500 m). General distribution: W. Africa to Zaire, Ethiopia, Uganda and Kenya.

Charaxes bohemani Felder, 1859. Common in open woodland and savanna throughout Mpanda and Kigoma. Not in forest. Record: widespread (800-1600 m, 2000 m at Mt. Sitebi).

Charaxes smaragdalis kigoma van Someren, 1964. In forests of Kigoma at Mukuyu, Kefu, Ntakatta and north of Kigoma to Burundi. South of Kigoma very rare. Record: 5a, 8a, 8b, Gombe (Miss Goodall), Burundi (800-1500 m). General distribution: represented by a number of races, scattered from western Kenya and Uganda, over Zaire and W. Africa, to Ivory Coast.

Charaxes tiridates tiridatus Röber, 1936. In forests of Mpanda and Kigoma. Rare south of Luegele river, where it occurs as far south as Sibweza, in area 6. It is common north of Luegele. Record: 1, 3a, 4a, 5a, 6, 8a, 8b, North of Kigoma (800-1500 m).

Charaxes bipunctatus ugandensis van Someren, 1972. Fairly common in the Ntakatta forest, but not found outside this forest. Record: 5a (1200-1500 m). General distribution: W. Africa to Zaire, Uganda and western Kenya.

Charaxes xiphares brevicaudatus Schultze, 1914. Taken in two forest remains of the Sitebi Mt., upper reaches of Katuma and at Ihassa Mt. near Ntakatta. All in banana traps. Rare. Record: 5a, 5b (1600-2000 m). General distribution: races are known from South Africa to northern Kenya and from Cameroun. Ssp. *maudei* J. & Tal., 1918, occurs at the east coast of Tanzania; ssp. *kilimensis* van Som. at Kilimanjaro; ssp. *kiellandi* Plantrou, 1976, at Mt. Oldeani, and there are earlier records of ssp. *brevicaudatus* from Iringa and Mbeya.

Charaxes ameliae amelina Joicey & Talbot, 1925. A forest species, but often flying

in open woodland. Rather common in Kigoma and the north-western part of Mpanda. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m, 2000 m at Mt. Sitebi).

Charaxes imperialis ugandicus van Someren, 1972. Very rare and local in forests of Mpanda and Kigoma, at Kasoge, Ujamba river, Kampisa, Lubalizi, Kefu, Mihumu and Ntakatta. Record: 1, 3a, 5a, 5b, 8a, 8b (800-1500 m). General distribution: W. Africa, Zaire to Uganda.

Charaxes pythodorus pythodorus Hewitson, 1873. Uncommon in forests of Kigoma and Mpanda. Wanzizi, Kampisa, Sitebi, Ntakatta, Luntampa, Ujamba riv. at 1300 m, Lukandamira, Kefu, Mihumu. Record: 1, 3a, 3b, 4a, 5a, 5b, 8a, 8b (800-1600 m, 2000 m at Mt. Sitebi). General distribution: from Kenya, Uganda to the eastern part of Zaire, western Zambia and Angola; ssp. *occidens* van Someren, 1963, W. Africa; ssp. *pallida* Carpenter, 1934, central Tanzania, and *nesaea* G. Smith, 1889, east coast of Kenya and Tanzania.

Charaxes eupale latimargo Joicey & Talbot, 1921. Riverine forests of Mpanda and Kigoma. Not uncommon, but difficult to trap with bait. Record: 1, 5a, 5b, 8a, 8b, Gombe (800-1500 m).

Charaxes dilutus dilutus Rothschild, 1898. Forests and riverine forests of Mpanda and Kigoma. Not uncommon. One record from Sibweza. Same habitats as *C. eupale*. Record: 1, 3a, 4a, 5a, 5b, 6, 8a, 8b (800-1700 m).

Charaxes jahlnusa kigomaensis van Someren, 1975 (= *kigoma* v. Som., 1974). In forests of Kasoge, Mihumu and Mukuyu in Kigoma, Ntakatta in Mpanda. Uncommon. Record: 1, 5a, 8a, 8b, Gombe (800-900 m, 1500 m at Ntakatta). General distribution: Ethiopia and East Africa to Mozambique, Rhodesia and South Africa.

Charaxes pleione bebra Rothschild, 1900. Taken in the Mukuyu forest, Kefu and Ntakatta. Very local. Record: 5a, 8a, 8b (800-900 m, 1500 m at Ntakatta). General distribution: W. Africa to Zaire, east to Uganda and West Kenya.

Charaxes zingha Stoll, 1780. Low altitude forests. Not taken south of Kefu forest. Very local. Record: 8a, 8b (800-900 m). General distribution: W. Africa to Zaire, east to Uganda.

Charaxes etesipe etesipe Godart, 1823. Kasoge and Kefu forest in Kigoma. Uncommon. Record: 1, 8b (900 m).

Charaxes etesipe tawetensis Rothschild, 1894. This subspecies was taken in the Luntampa forest, and Lubalizi and probably meets ssp. *etesipe* in this area. Record: 3a, 4a (1200 m).

Charaxes penricei tanganyikae van Someren, 1966. Rare in woodland and savanna of Mpanda. In the Kigoma area taken in forests only. Rarely attracted to banana bait. Record: 1, 3a, 4a, 4b, 5a, 6, 8a, 8b, Ugala river, Gombe (800-1300 m). At Mihumu ♀ form *caerulescens* van Someren, 1969, first taken by Zuzuki. General distribution: ssp. *tanganyikae* from Mbeya along the east side of Lake Tanganyika to south Burundi, thence west to Mwanza south of Lake Victoria.

Charaxes achaemenes achaemenes Felder, 1867. Very common throughout Mpanda, Kigoma and Ufipa, in open woodland and savanna. Record: widespread (800-1500 m, 2000 m at Mt. Sitebi).

Charaxes anticlea adusta Rothschild, 1900. Forests of Kigoma at Kasoge, Lubalizi, Mihumu, Kefu, Luntampa, Ntakatta and Mukuyu. Not common. Record:

1, 3a, 4a, 5a, 8a, 8b, Gombe (800-1500 m).

Charaxes baumanni whytei Butler, 1893 (cline to ssp. *baumanni*). Forests and riverine forests of Mpanda, Kigoma and Ufipa. Rather high level species. Local, but common at Wanzizi and Kampisa. Record: 1, 3a, 3b, 5a, 5b, Chala, Mbuzi Mt. (1200-2000 m, rare below 1500 m). General distribution: several races from Uganda in the north to Rhodesia in the south.

Charaxes guderiana guderiana Dewitz, 1879. Very common in woodland and savanna throughout Mpanda, Kigoma and Ufipa. Record: widespread (800-1800 m).

Charaxes etheocles carpenteri Poulton, 1919. Forests of Kigoma and at Wanzizi in Mpanda. Very rare in Mpanda, but more common in Kigoma. Record: 1, 2a, 3b, 4a, 5a, 5b, 8a, 8b, Mbuzi Mt. in Ufipa (800-2000 m).

Charaxes grahami van Someren, 1969. Not uncommon in the forests of Kasoge, Kefu, Ntakatta and Mihumu. Not yet taken south of Kasoge, and north of Kigoma. Rarely obtained on banana bait, but males frequently on animal droppings. Females difficult to obtain. Record: 1, 5a, 8a, 8b (800-1000 m, 1500 m at Ntakatta). This species, first obtained by the Japanese Primate Exp. from Kyoto, is most certainly endemic to the recorded area. At Mihumu form *lacteata* van Someren, 1969.

Charaxes howarthi Minig, 1976. The commonest of the black *Charaxes* in this area. In woodland and forest throughout Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, 9b, Chala, Gombe (800-1500 m, 2000 m at Sitebi).

Charaxes pseudophaeus van Someren, 1957 (= *Ch. manica* ♀ f. *pseudophaeus* van Som. & Jackson, 1957). Uncommon in woodland of Mpanda and Kigoma. Record: 2a, 2b, 5a, 5b, 6, 7 (900-1500 m). I am not certain of the validity of this species.

Charaxes (?) *aubyni* Poulton, 1925. A male was taken in a banana trap at Gombe Stream Nat. Park north of Kigoma, December 1972. Record: Gombe (900 m). Under-side much darker than in *aubyni*; possibly a new species.

Charaxes fionae Henning, 1977. Open woodland of Mpanda, Kigoma and Ufipa. More common in the south. Record: 2b, 5b, 6, Ufipa, Kigoma, Gombe (800-1600 m, 2000 m at Mbuzi Mt.).

Charaxes cedreatis Hewitson, 1874. ♀ forms *vetula* R., 1900, *cedreatis* H., *inexpectata* v. Som., 1969. Rather common in open woodland and forests of Kigoma and Mpanda. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b (800-2000 m).

Charaxes chepalungu van Someren, 1969. A few records from Kigoma and Mpanda. One male also taken south of Biharamulo. Record: 4a, 6, 8a, 8b, Biharamulo (900-1200 m). General distribution: east of Lake Victoria.

Charaxes ethalion nyanzae van Someren, 1967. ♀ forms *ethalion* B. and *rosae* B., 1895. Common in open woodland, savanna and forest of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Charaxes ethalion nyasicus van Someren, 1975 (= *nyasana* van Som., 1967). Occurring in the Ufipa area and probably the southern part of Mpanda. Record: Rukwa basin (ca. 1000 m).

Charaxes nichetes pantherina R.-Decelle, 1934. Uncommon in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1500 m).

Charaxes zelica toyoshimai Carcasson, 1964. Known from forests of Mukuyu, Mihumu, Kefu and Ntakatta in the sandstone area. Record: 5a, 8a, 8b (800-900 m,

1500 m at Ntakatta). First obtained by the Japanese Expedition from Kyoto.

Charaxes laodice Drury, 1782. Very local. Taken in low level forests at Kasoge, Mukuyu, Mihumu, Kefu, Luntampa, Ntakatta and Lubalizi. Also a tattered male taken at Gombe. Record: 1, 3a, 4a, 5a, 8a, 8b, Gombe (800-1200 m, 1500 m at Ntakatta).

Charaxes zoolina zoolina Westwood, 1850. A male (w.s.f.) was taken in the Rukwa basin in savanna at Muze (ca. 1000 m).

Palla publius kigoma van Someren, 1975. Flying in forests of Kigoma, Mukuyu and Kefu forests. Uncommon and very local. Record: 8a, 8b (800-900 m).

Palla ussheri interposita Joicey & Talbot, 1925. Flying in low level forests of the Kigoma area; Mukuyu, Mihumu and Kefu forests. Sandstone area only. Uncommon. Record: 8a, 8b (800-950 m). The two *Palla* species were first collected by the Japanese Expedition.

Subfamily Nymphalinae

Cymothoe theobene theobene Doubleday, 1848. The commonest *Cymothoe* species, in riverine forests and heavy woodland and shrub throughout Mpanda and Kigoma. Also one female taken near Chala in Ufipa at 1800 m. Some melanistic females are nearly uniformly brown above. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Chala, Gombe (800 to over 1800 m).

Cymothoe egesta confusa Aurivillius, 1887. Forests of Mpanda and Kigoma; rather uncommon. Record: 1, 3a, 3b, 4a, 5a, 8a, 8b (800-1500 m).

Cymothoe lurida azumai Carcasson, 1964. Riverine forests of Mpanda and Kigoma. Rather common. Record: 1, 2a, 3a, 4a, 5a, 8a, 8b (800-1500 m).

Cymothoe herminia johnstoni Butler, 1902. Rather common in forests of Mpanda and Kigoma. Record: 1, 3a, 3b, 4a, 5a, 8a, 8b (800-1500 m).

Cymothoe coranus Grosse-Smith, 1889. A few specimens taken in forests of Mpanda and Kigoma. Rare. One record from Wanzizi, from Kasoge, Ntakatta, Mihumu, Kefu and Gombe. Record: 1, 3b, 5a, 8a, 8b, Gombe (800-1450 m).

Cymothoe caenis Drury, 1773. Low to rather high altitude forests of Mpanda and Kigoma. Not uncommon. Record: 1, 3a, 5a, 6, 8a, 8b (800-1600 m). At Kasoge ♀ f. *rubida* Holl., 1920, and *conformis* Aur., 1898; at Lukandamira ♀ f. *caenis*; at Sibweza ♀ f. *rubida*.

Cymothoe sangaris Godart, 1823; ssp. near *luluana* Overlaet, 1945. Forests of Mpanda and Kigoma. More common in the sandstone area than south of the Luegele river. At Wanzizi one record only. Record: 3a, 3b, 4a, 5a, 5b, 8a, 8b (800-1500 m).

Pseudathyma plutonica expansa ssp. nov. (text-fig. 29, pl. 9 figs. 31-33). Several males and females were taken, November 1971, along a forest river in the Ntakatta forest. A few more specimens were taken in February and in November 1972. Record: 5a (1400-1500 m).

Male. Upperside fore wing discal white spots wider than in ssp. *plutonica*, particularly the spots from 2-6; all pale markings creamy, with only slight greenish tint; hind wing band generally wider and its outer border incised at the ribs, making a wavy outline; in ssp. *plutonica* the border is smooth, the inside less rounded, more uneven.

Underside white markings as above, otherwise like the nominate race. Length of fore wing 23 to 24 mm. Genitalia as in *ssp. plutonica*.

Female. As the male, but larger and the pale markings white and more extended. Length of fore wing 26-27 mm. Genitalia as in *ssp. plutonica*.

Holotype ♂ : Tanzania, Mpanda, Ntakatta forest, 1500 m, November 1971, J. Kielland. Allotype ♀ : Same data and collector. Paratypes: 6 ♀ and 6 ♂, same data.

Holotype, allotype and paratypes are deposited in the National Museum, Nairobi. Other paratypes in the British Museum (Nat. Hist.), London, and J. Kielland collection.

This race has so far only been taken in the Ntakatta forest (Mpanda), close to the Kigoma border, in sandstone formations. Early rainy season only.

Euryphura spec. A few specimens taken in the following places: Kasoge, Ntakatta, Kefu, Kasha and at Mihumu. Rare. Record: 1, 5a, 8a, 8b (800-1400 m). Occurrence February, April, September, October, November. The species was not represented in the National Museum, Nairobi, and is probably undescribed.

Crenidomimas concordia Hopffer, 1855. Common in open woodland of Mpanda and Kigoma. Record: 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, 9b (800-1600 m).

Euryphene itanii Carcasson, 1964. Flying close to the ground in dense forests of Kigoma. Probably also in Mpanda in the north. Common. At low levels. Record: 1, 2a, 3a, 4a, 5a, 8a, 8b (800-1500 m).

Euphaedra spatiosa Mabilie, 1877. Forests of Kigoma and Mpanda in the north-west. Common. Record: 1, 2a, 3a, 4a, 5a, 5b, 8a, 8b, Gombe (800-1400 m). Common in low forests, rapidly becoming scarcer at higher levels.

Euphaedra medon fraudata Thureau, 1903. Common in forests and forest margins of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Gombe (800-1700 m).

Euphaedra sarcoptera nipponicorum Carcasson, 1965. Forests of Kigoma. Rare. Records from Mihumu, Kapalamasenga river, Mugondozi river, Kefu forest, upper part of Lukoma river near Mt. Karobwa. Record: 2a, 8a, 8b (900-1100 m). Collected in March, June, September, October, November.

Euphaedra phosphor Joicey & Talbot, 1921 (= *ceres* Fabr. *ssp. phosphor*). Low altitude riverine forests of Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 4a, 5a, 8a, 8b, Gombe (800-1200 m, 1700 at Mahale).

Euphaedra nigrobasalis Joicey & Talbot, 1921. Probably an undescribed race. Not uncommon in forests of Mpanda and Kigoma. Record: 1, 2, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1500 m). Recorded as *cooksoni katangensis* Talbot, 1927, by Carcasson (1966). According to M. Clifton (National Museum, Nairobi) this is *E. nigrobasalis*.

Euphaedra cyanea Holland, 1920 (= *E. xypete* Hew. f. *cyanea*). So far only a few males taken in the Kefu forest at Helembe. All in one year, 1970. Not seen since. January and March. Record: 8b (950 m). Differs from typical *cyanea* and is probably a new race.

Euphaedra coprates Druce, 1875 (= *E. eleus* Drury f. *coprates*). Forests of Kigoma. Uncommon. Mukuyu, Mihumu, Kefu, Zanza river, Lubalizi, Luntampa, Ntakatta. Record: 3a, 4a, 5a, 8a, 8b (800-1200 m, 1500 m at Ntakatta). Mention-

ed by Carcasson (1966) as *Najas eleus*. This species differs considerably from *eleus* and probably is a new race of *coprates*. Confirmed by M. Clifton (Nairobi).

Euphaedra zaddachi Dewitz, 1879. Forests of Mpanda and Kigoma. Not uncommon. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Euphaedra mardania Fabricius, 1793 (= *Euryphene mardania* Fabr.), a new subspecies. Common in low level forests and forest margins of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 4a, 5a, 5b, 8a, 8b, Gombe (800-1200 m, 1500 m at Kampisa). This race is recorded from Ukerewe Island in Lake Victoria and at Abercorn in Zambia.

Euphaedra sophus ochreata Carcasson, 1961. Forests of Mpanda and Kigoma. Rather common in medium altitude forests of Wanzizi, less common further to the north, e.g. at Sitwe, Kampisa, Lukandamira. In the sandstone formations it occurs in low level forests. Not so in the basement area, except at Luntampa which borders on the sandstone. Record: 1, 3a, 3b, 4a, 5a, 5b (900-2000 m).

Hamanamida daedalus Fabricius, 1775. Ubiquitous, throughout Mpanda, Kigoma and Ufipa. In open woodland, savanna, forest and montane grassland. Record: widespread (900-2200 m).

Aterica galene galene Brown, 1776. Very common in forest, bush and heavy woodland throughout Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Pseudargynnis hegemon nyassae Bartel, 1905. Along rivers, forest margins and areas flooded during the rainy season in Mpanda and Kigoma. Record: 1, 2a, 3a, 4a, 5a, 5b, 6, 8a, 8b, 9a (800-1500 m).

Catuna crithea Drury, 1773. Dense forests of Kigoma and possibly Mpanda in the north, fluttering close to the ground and settling in spots of sun. Record: 1, 2a, 3a, 4a, 5a, 8a, 8b (800-1300 m, 1850 m in the Karobwa forest). The Karobwa forest is high altitude forest, completely separated from lower forests by open grassland and woodland further down. Also taken at Lukandamira, 1700 m.

Pseudacraea semire Cramer, 1779. Scarce. In forests of Mpanda and Kigoma. Record: 1, 5a, 5b, 8a, 8b, Gombe (800-1500 m).

Pseudacraea boisduvali trimeni Butler, 1874. Forests and heavy woodland of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b (800-1500 m).

Pseudacraea eurytus Linnaeus, 1758. Forests of Kigoma and Mpanda: Lubalizi, Luntampa, Kasoge, Mihumu, Kefu, Ntakatta. Record: 1, 3a, 4a, 5a, 8a, 8b (800-1500 m). The following forms occur: *kunovoides* Carp., 1930, *conradti* Obert., 1893, *opisthoxantha* Carp., 1924, *hobleyi* Neave, 1904, *bicolor* Aur., 1898, *ruhamia* Hew., 1872, ♀ f. *terra* Neave, 1904, ♀ f. *simulator* B., 1873, ♀ f. *poggeoides* Poult., 1913, ♀ f. *fulvaria* B., 1874, ♀ f. *tirikensis* Neave, 1904, f. *terra* ab. *impleta* Grünb., 1910, ♂ f. *jacksoni* Carp., 1949, ♀ f. *grisea* Carp., 1949.

Pseudacraea poggei Dewitz, 1879, forms *poggei* and *carpenteri* Poult., 1918. Woodland in Mpanda and Kigoma. Not common. Record: 6, 8a (800-1400 m).

Pseudacraea lucretia expansa Butler, 1887, with ♀ f. *heliogenes* Butler, 1896. Common in forests and heavy woodland throughout Mpanda and Kigoma. Record: widespread (800-2000 m).

Pseudacraea deludens deludens Neave, 1912. Montane forests of Mahale in Kigoma and Sitebi in Mpanda. Record: 1, 5b (1600-2000 m). Three specimens from Mahale in December and June; eight specimens from Sitebi in September, 1970.

Subfamily Neptidinae

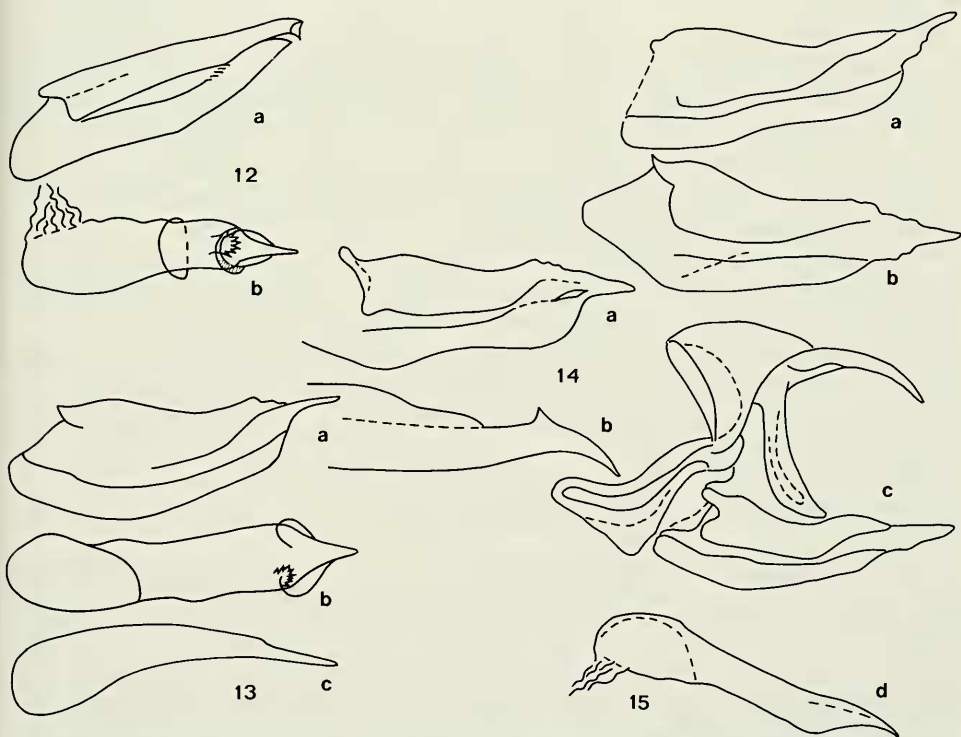
Neptis saclava marpessa Hopffer, 1855. Common in forests, woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread, also at Gombe (800-2000 m).

Neptis nemetes nemetes Hewitson, 1868 (text-fig. 12). Forests of Kigoma and Mpanda. Very common in the sandstone formations, but much scarcer in the basement area. Record: 4a, 5a, 6, 8a 8b, Biharamulo (800-1200 m, 1500 m at Ntakatta).

Neptis serena Overlaet, 1955 (text-fig. 13). Woodland, savanna and forest throughout Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, 9b, Ufipa, Gombe (800-1800 m).

Neptis laeta Overlaet, 1955 (text-fig. 14). Same habitats as above. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, 9b, Ufipa, Gombe (800-2200 m).

Neptis kiriakoffi Overlaet, 1955 (text-fig. 15). Woodland, savanna and riverine forest of Mpanda and Kigoma. Very common. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, 9b (800-2000 m).



Figs. 12—15. Male genitalia of *Neptis* species. 12, *N. nemetes* Hew., Mihumu, Kigoma, no. 480; a, valva, lateral aspect; b, aedeagus. 13, *N. serena* Ovl., Sibweza, Mpanda, no. 182; a, valva, lateral aspect; b, aedeagus; c, valva, dorsal aspect. 14, *N. laeta* Ovl., Sibweza, Mpanda, no. 271; a, valva, lateral aspect; b, valva, dorsal aspect. 15, *N. kiriakoffi* Ovl.; a, typical valva, Sibweza, Mpanda, no. 179; b, atypical valva, Morogoro, no. 347; c, atypical valva, Sibweza, Mpanda, no. 481; d, aedeagus.

Neptis gratiosa Overlaet, 1955 (text-fig. 16). Stunted woodland at rather high altitude at Kampisa and at Ngondo and Mweze. Very local. Record: 3a, 5b (1500-1700 m).

Neptis penningtoni van Son, 1953 (text-fig. 17). *Brachystegia* hills of Mpanda and Kigoma. Not common. Record: 1, 3a, 4a, 5b, 6 (900-1700 m).

Neptis jordani Neave, 1910 (text-fig. 18). Riversides and marshy woodland. Common. Record: 1, 2a, 2b, 4a, 4b, 5a, 8a, 8b (800-1200 m).

Neptis alta Overlaet, 1955 (text-fig. 19). *Brachystegia* hills of Mpanda and Kigoma. Common. Record: 1, 2b, 3a, 3b, 5a, 5b, 6, 8a, 8b (1000-1600 m, 1900 m at Mt. Sitebi).

Neptis metanira conspicua Neave, 1904 (= *nysiades* Hew. f. *conspicua*) (text-fig. 20). Forests of Mihumu, Kefu, Luntampa, Lubalizi. Rare. Record: 3a, 4a, 5a, 8a, 8b (800-1200 m, 1500 m at Ntakatta).

Neptis puella Aurivillius, 1894 (text-fig. 21). Forests of Lubalizi, Kefu, and a forest near Mt. Sitebi. Rare. Record: 3a, 5a, 5b, 8b (900-1700 m). General distribution: Ivory Coast, Cameroun to Zaire and Uganda.

Neptis trigonophora vansomereni Eltringham, 1929 (text-fig. 22). Rather common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, (800-1500 m).

Neptis strigata Aurivillius, 1894 (text-fig. 23). Not uncommon in forests of Kigoma and Mpanda. Record: 1, 3a, 4a, 5a, 8a, 8b (800-1500 m).

Neptis nicoteles Hewitson, 1874 (text-fig. 24). Forests at Helembe, Mukuyu, Luntampa, Lubalizi, Ntakatta. Rare. Record: 3a, 4a, 5a, 8a, 8b (800-1200 m, 1500 m at Ntakatta). General distribution: Nigeria, Cameroun and Zaire to Uganda.

Neptis melicerta Drury, 1773 (text-figs. 25, 28). Mukuyu forest, Kefu forest, Mugondozi river. Sandstone area only. Record: 5a, 8a, 8b (800-1400 m).

Neptis carcassoni van Son, 1959 (= *melicerta* Dr. ssp. *carcassoni*) (text-figs. 25, 28). Evergreen forests of Mpanda and Kigoma. Particularly in the sandstone area. Record: 1, 3a, 4a, 5a, 5b, 6, 8a, 8b, 9b, Gombe (800-1500 m).

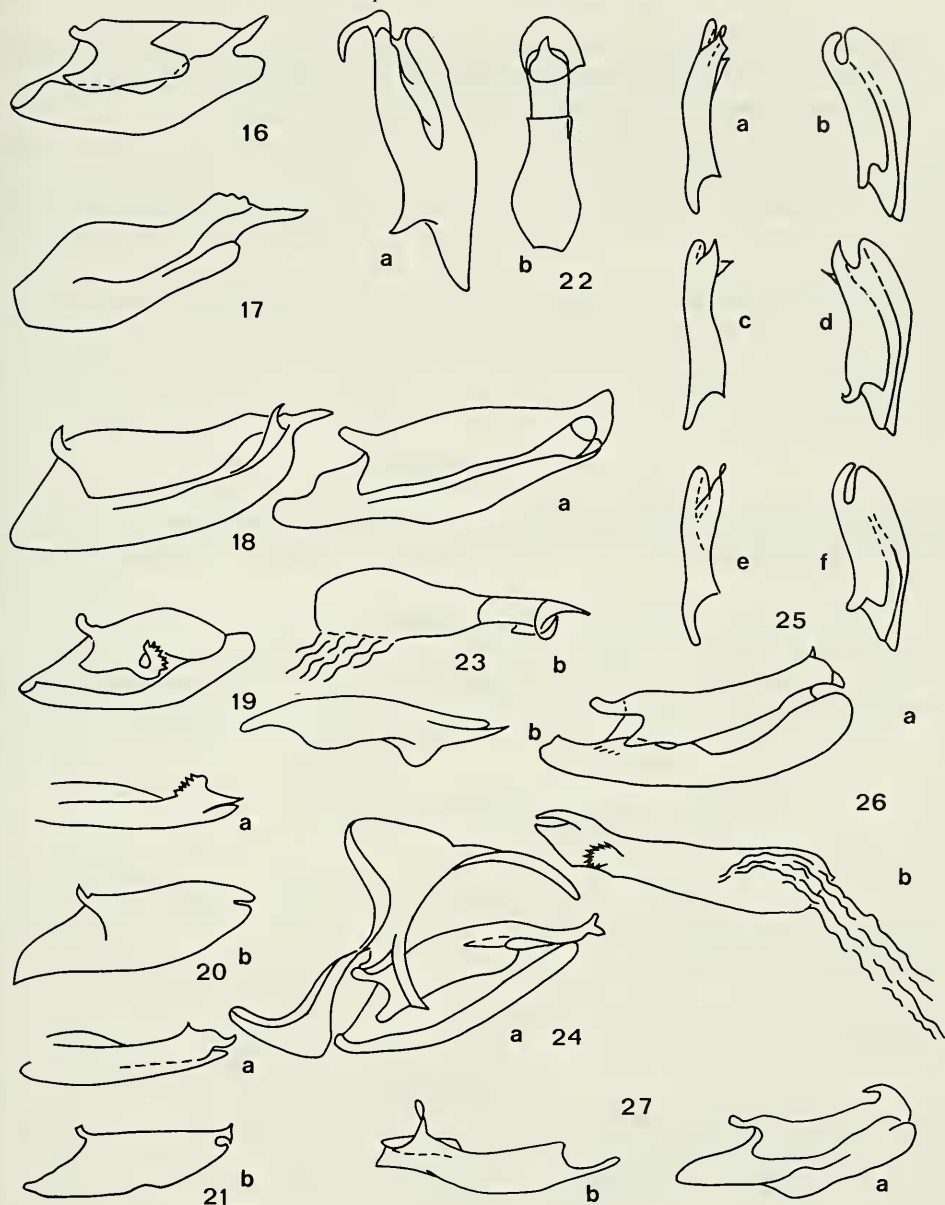
N. melicerta and *N. carcassoni* overlap considerably and should be recorded as separate species. Except in area 5a (Ntakatta) *N. goochi* is only overlapped by *carcassoni* and could be considered a race of *melicerta*; however, the genitalia of all three differ as shown in text-fig. 25.

Neptis goochi Trimen, 1879 (= *melicerta* Dr. ssp. *goochi*) (text-figs. 25, 28). Forests of Mpanda and Kigoma. Common. Record: 1, 3a, 4a, 5a, 6, 8b (1000-1500 m).

Neptis occidentalis occidentalis Rothschild, 1918 (text-fig. 26). Forests of Mweze and Mahale in Kigoma. Not common and very local. Record: 1, 3a (1600-2000 m).

Neptis ochracea reducta ssp. nov. (text-fig. 27, pl. 9 figs. 34-36). Montane forests of Mpanda and Kigoma. Not uncommon. Record: 1, 3a, 5a, 5b (1500-2000 m).

Differs from the nominotypical race in reduction of the fore wing spots in space 1. In all males examined the spots are reduced to a streak along the hind margin; in one specimen hardly discernible. In ssp. *ochracea* there are two long spots in space 1b, usually conjoined and almost confluent with the spots 3 and 4, forming a band. The yellow band of the hind wing is very variable, in most specimens



Figs. 16—27. Male genitalia of *Neptis* species. 16, *N. gratiosa* Ovl., Mweze, Mpanda, no. 613; valva, lateral aspect. 17, *N. penningtoni* van Son, Sibweza, Mpanda, no. 186; valva; lateral aspect. 18, *N. jordani* N., Sibweza, Mpanda, no. 183; valva, lateral aspect. 19, *N. alta* Ovl., Sibweza, Mpanda, no. 242; valva, lateral aspect. 20, *N. mentanira conspicua* N., Mukuyu, Kigoma, no. 763; a, valva, dorsal aspect; b, valva, lateral aspect. 21, *N. puella* Aur., Lubalizi, Kigoma, no. 762; a, valva, dorsal aspect; b, valva, lateral aspect. 22, *N. trigonophora vansomereni* Eltr., Sibweza, Mpanda, no. 475; a, valva, lateral aspect; b, aedeagus. 23, *N. strigata* Aur., Kigoma, no. 486; a, valva, lateral aspect; b, aedeagus. 24, *N. nicoteles* Hew., Ntakatta forest, Mpanda, 1500 m, no. 1464; a, genitalia in lateral view with aedeagus and left valva removed; b, valva in dorsal aspect. 25, *N. melicerta melicerta* Dr., a, valva, dorsal aspect; b, valva, lateral aspect; *N. carcassoni* stat. n., c, valva, dorsal aspect; d, valva, lateral aspect; *N. goochi* Trim.; e, valva, dorsal aspect; f, valva, lateral aspect. 26, *N. occidentalis occidentalis* Roth., Mweze forest, Kigoma, no. 488; a, valva, lateral aspect; b, aedeagus. 27, *N. ochracea reducta* ssp. n., Lukandamira, Mahale, Kigoma, no. 791; a, valva, lateral aspect; b, valva, dorsal aspect.

much reduced and separated in space 1b, in others wider and conjoined. The females have much wider and paler hind wing bands and the fore wing pale spots less reduced.

Habitat. Montane forests and riverine forests in western Tanzania.

Holotype ♂ : Tanzania, Mpanda, Mt. Sitebi, 2000 m, 2. v. 1970, J. Kielland. Allotype ♀ : Tanzania, Kigoma, Sitwe, 1700 m, 20. viii. 1960, J. Kielland. Paratypes: Tanzania, Kigoma, Lukandamira, 1600 m, August 1970; 3 ♂, 2 ♀, same, but October 1969; Mt. Sitebi, 1.v. 1970, 1 ♂; Mpanda, Katuma, July 1972, 1 ♂; Sitwe, 29. ix. 63, 1 ♂. All. J. Kielland.

Holotype, allotype and paratypes in the National Museum, Nairobi; further paratypes in the British Museum (Nat. Hist.), London, and J. Kielland collection.

Neptis incongrua Butler, 1896. Flying sparingly in the Mbisi Forest, Ufipa (2300 m); one female taken February 1978.

Subfamily Marpesiinae

Cyrestis camillus camillus Fabricius, 1781. Forests of Mpanda and Kigoma. Particularly along streams. Record: 1, 2a, 3a, 4a, 5a, 5b, 8a, 8b (800-1500 m).

Subfamily Eunicinae

Sallya pechueli Dewitz, 1879. One male taken by T. H. E. Jackson's collector

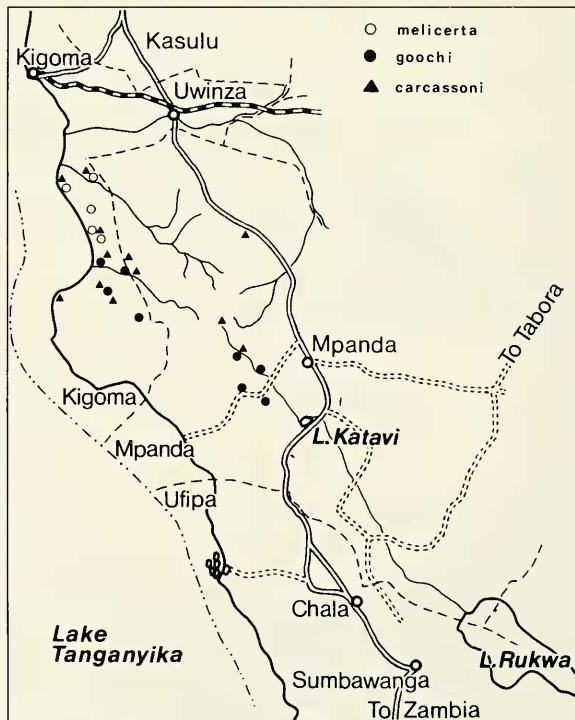


Fig. 28. Distribution of *Neptis* species.

Watulege in the Mpanda area. One male taken by me at Luegele in Kigoma, 1. xii. 1970, in open woodland. Record: 4a, Mpanda area (1100 m).

Sallya amulia rosa Hewitson, 1877. Woodland and swampy ground of Mpanda and Kigoma. Record: 3a, 4a, 5a, 5b, 6, 8a, 8b (800-1300 m). Very common in certain places of area 8a, 8b, particularly on hills near Helembe, in the dry season. Further south less common and local.

Sallya occidentalis occidentalis Mabilie, 1876. Very local in forests of Mpanda and Kigoma. Record: 1, 4a, 5a, 5b, 8a, 8b (800-1500 m).

Sallya moranti dubiosa Strand, 1911. Forests and woodland of Mpanda and Kigoma. Common. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1500 m, 1900 m at Sitebi).

Sallya spec. Some males and females, closely related to *moranti*, were sent to the late Mr. Peter Muteshi who was revising *Sallya* at the National Museum, Nairobi. Mr. Muteshi was about to describe it as a new species. Forests of Luntampa, Lubalizi, Kefu, Mukuyu, Ntakatta. Record: 3a, 4a, 5a, 8a, 8b (800-1200 m).

Sallya boisduvali boisduvali Wallengren, 1857. Forests and woodland of Mpanda and Kigoma. Rather common. Record: 3a, 3b, 5a, 5b, 6, 8a, 8b, 9b, Gombe (800-2000 m).

Sallya boisduvali omissa Rothschild, 1918. Record: Kasoge forest at 1 (800 m).

Sallya garega garega Karsch, 1892. Forests of Mpanda and Kigoma. Not very common. Record: 1, 3a, 3b, 4a, 5a, 5b, Gombe (1500 m).

Sallya umbrina Karsch, 1892. Common in forests and woodland of Kigoma and Mpanda, Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 8a, 8b, Gombe (800-1600 m).

Subfamily Eurytelinae

Byblia acheloia acheloia Wallengren, 1857. Very common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m).

Mesoxantha ethosea reducta Rothschild, 1918. Low level forests of Kigoma and probably Mpanda in the north. Often occurring in small colonies. Local. Record: 1, 3a, 4a, 5a, 8a, 8b (800-1500 m).

Ariadne enotrea suffusa Joicey & Talbot, 1921. Forests and heavy woodland and shrub in Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Biharamulo, Gombe (800-1500 m).

Ariadne enotrea archeri Carcasson, 1958. From Lubalizi, Sibweza, Kampisa and other places. A doubtful subspecies since ssp. *suffusa* is found in the same areas.

Ariadne pagenstecheri Suffert, 1904. Forests of Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6 (1200-2300 m). A rather high altitude species. At Kampisa, 1500 m, *A. enotrea* and *A. pagenstecheri* fly together. In most other places they are not seen together. *A. pagenstecheri* more often flies at higher altitudes, while *A. enotrea* frequents lower levels.

Neptidopsis ophione ophione Cramer, 1777. Very common in forests and woodland of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Eurytela hiarbas hiarbas Drury, 1782. Forests throughout Mpanda, Kigoma and Ufipa. Common. Record: widespread (800-2200 m).

Eurytela dryope angulata Aurivillius, 1898. Common in forests and heavy wood-

land of Mpanda, Kigoma and Ufipa. Record: widespread (800-1700 m, 2000 m in Ufipa).

Subfamily Vanessinae

Kallima rumia rattrayi Sharpe, 1904. Forests of Kigoma and Mpanda. Locally common. Record: 1, 2a, 3a, 4a, 5a, 5b (800-1400 m, 1600 m at Lukandamira and 1700 m at Mt. Ipumba). Differs somewhat from ssp. *rattrayi* and may constitute an undescribed race.

Kallima cymodoce Cramer, 1777, form *lugens* Schultze, 1912. Flying in low altitude forests of Kigoma, in the sandstone area only. Local and uncommon. Mihumu, Kapalamasenga river, Mubondozi river, Kefu. Record: 8a, 8b (900-1100 m).

Kallima ansorgei Rothschild, 1899. The Ntakatta forest only. Very local. Record: 5a (1200-1500 m). *K. ansorgei* and *K. rumia* fly together, while neither of these have been taken further inside the sandstone area where *K. cymodoce* occurs. Ntakatta is situated on the border between sandstone and basement formations.

Apaturopsis cleocharis Hewitson, 1873. One specimen was observed by the author in the Mukuyu forest in Kigoma. Record: 8a (800 m).

Hypolimnias misippus Linnaeus, 1764; ♀ forms: *misippus*, *inaria* Cr., 1779, and *alcippoides* B., 1883. Common in woodland and open habitats of Mpanda and Kigoma. Record: widespread (800-1500 m).

Hypolimnias monteironis Druce, 1874. Luntampa and Ntakatta forests only. Very rare and local. Record: 4a, 5a (1200-1500 m). This is probably an undescribed race.

Hypolimnias dinarcha Hewitson, 1865. Kigoma area. Mukuyu forest, 1 ♂, November; Luntampa forest, May, June and March, a few specimens; Ntakatta forest 1 ♂. Very rare and local. Record: 4a, 5a, 8a (800-1200 m). Intermediate between the W. African and the Uganda race.

Hypolimnias dubius dubius Polisot de Beauvais, 1805. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b (800-1700 m). Forms: *dubius*, *damoclina* T., 1869, *anthedon* Dbl., 1845.

Salamis temora Felder, 1867. Dense forests of Kigoma and the Ntakatta in Mpanda. Record: 1, 4a, 5a, 8a, 8b, Gombe (800-1200 m, 1600 m at Lukandamira).

Salamis parhassus Drury, 1782; forms: *parhassus* and *aethiops* de Beauvais, 1805. Very common in forests and heavy woodland of Mpanda and Kigoma. Record: widespread (800-2200 m).

Salamis anacardii Linnaeus, 1764. Common in woodland, savanna and forest margins of Mpanda and Kigoma. Record: widespread (800-1600 m).

Salamis cacta cacta Fabricius, 1793. Not common in forests of Mpanda and Kigoma, Mihumu, Kefu, Ntakatta, Lubalizi, Luntampa. Record: 3a, 4a, 5a, 8a, 8b (800-1250 m).

Precis cloanthe Cramer, 1781. Very common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Precis touhilimasa Vuillot, 1892. *Brachystegia* woodland of Mpanda, Kigoma and Ufipa. Preferring hills. Record: 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, Chala (1000-1800 m).

Precis artaxia Hewitson, 1864. *Brachystegia* woodland, savanna and grassland of

Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Chala (800-1900 m). Forms: *artaxia* (d.s.f.) and *nobilitata* Thur., 1905 (w.s.f.). The latter is smaller than *artaxia* and occurs during the start of the rains, in Nov. to Dec. Only tattered specimens of this form have been taken early January. The form *artaxia* emerges late December and continues to emerge during the rainy season, until May-June. From then on, during the dry season few specimens seem to emerge. Specimens are increasingly tattered as the dry spell continues, until late October.

Precis stygia gregorii Butler, 1895. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1800 m).

Precis natalica natalica Felder, 1860. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1700 m).

Precis terea elgiva Hewitson, 1864. Very common in forests and woodland of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m).

Precis archesia Cramer, 1779; forms *archesia* (d.s.f.), intermediate f. *chapunga* Hew., 1864, *pelasgis* Gt., 1819 (w.s.f.). Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1800 m).

Precis sinuata Plötz, 1880. Forests and woodland of Kigoma and Mpanda. Rather common. Record: 1, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, 9a, 9b, Gombe (800-1500 m).

Precis tugela Trimen, 1879. Forests and woodland of Mpanda and Kigoma. Rather common. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6 (800-2000 m).

Precis rauana (?) *kakamega* Carcasson, 1961. Not uncommon in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b (1200-2000 m).

Precis actia Distant, 1880; forms: *actia* (d.s.f.), *furcata* R. & Jordan, 1903 (w.s.f.). Woodland and savanna of Mpanda, Kigoma and Ufipa. Common. Record: widespread (800-2000 m).

Precis pelarga Fabricius, 1775; forms: *leodice* Cr., 1777 (d.s.f.), *harpyia* F., 1781 (d.s.f.), *pelarga* (w.s.f.). Flying in woodland of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8b, Kishi in Ufipa, Gombe (800-1600 m).

Precis ceryne Boisduval, 1847; forms: *ceryne* (w.s.f.), *tukuoa* Wall., 1857 (d.s.f.). Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m).

Precis antilope Feisthamel, 1850; forms: *antilope* (d.s.f.), *simia* Wall., 1857 (w.s.f.). Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8b, Rukwa basin, Gombe (800-1700 m).

Precis cuama Hewitson, 1864. Taken in stunted woodland at Kampisa in Mpanda. Very rare. Record: 5b (1500 m).

Precis octavia sesamus Trimen, 1883; forms: *sesamus* (d.s.f.), *natalensis* St., 1885 (w.s.f.), intermediate f. *transiens* Wich., 1918. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-2100 m).

Precis sophia infracta Butler, 1888. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Often flying in swampy areas and along river banks. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Chala, Gombe (800-1800 m).

Precis westermanni westermanni Westwood, 1870. Two males taken Jan. 1973 in the Ntakatta forest at a riverbed. Record: 5a (1400 m). General distribution: W. Afri-

ca to Uganda and Kenya. Haldane (1969) recorded it from Ngara Distr. south of Bukoba, Tanzania.

Precis oenone oenone Linnaeus, 1764 (= *clelia* Cr., 1775). Common in open habitats and woodland of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m).

Precis hierta hierta Fabricius, 1798 (= *cebrene* T., 1870). Open habitats and woodland of Mpanda, Kigoma and Ufipa. Common. Record: widespread (800-2000 m).

Precis orithya madagascariensis Guenee, 1864. Common in open habitats and woodland of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m).

Vanessula milca latifasciata Joicey & Talbot, 1928. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 4a, 5a, 5b, 6, 8a, 8b, 9b (800-1500 m).

Vanessa cardui Linnaeus, 1758. Ubiquitous in all open and wooded habitats of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Antanartia hippomene hippomene Hübner, 1806. Forests of Kigoma, Mpanda and Ufipa. Not uncommon in highland. Record: 1, 3a, 5b, Mbizi Mt., Chala, Mbuzi Mt. (1500-2300 m).

Antanartia schaenia dubia Howarth, 1966. Forests of Mpanda, Kigoma and Ufipa. High altitude. Record: 1, 3a, 5b, Mbizi forest, Chala Mt., Mbuzi Mt. (1700-2300 m).

Antanartia delius Drury, 1782. Record: Gombe (900 m).

Subfamily Argynnidinae

Lachnoptera iole Fabricius, 1781. Ssp. intermediate between *iole* and *ayresii* Trimen, 1879. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, 9b (800-1500 m).

Phalanta columbina columbina Cramer, 1779. Common in forests of Mpanda, Kigoma and Ufipa. Record: widespread (800-1800 m).

Phalanta phalantha aetiopica Rothschild & Jordan, 1903. Common in woodland, savanna and open habitats of Mpanda, Kigoma and Ufipa. Record: widespread (800-1600 m).

Issoria excelsior katangae Neave, 1910. Forests and forest margins surrounded by open grassland in Ufipa. Record: Mbizi forest in Ufipa (2000-2300 m).

Family Acraeidae

Bematistes vestalis Felder, 1865. Forests of Kigoma in the sandstone area only. Very local. Record: 8a, 8b (800-1100 m).

Bematistes alcinoe camerunica Aurivillius, 1893. A rare species occurring in the Kasoge forest, Kefu, Luntampa and at Mihumu. September and January. Record: 1, 4a, 8a, 8b (800-950 m).

Bematistes umbra macarioides Aurivillius, 1893. A rare species, mainly in dense forest of the sandstone area. Mihumu, Kefu, Ntakatta, Luntampa, Lubalizi. January, February, April, September. Record: 3a, 4a, 5a, 8a, 8b (800-1400 m). General distribution: From Ivory Coast to Nigeria, Cameroun and Zaire. Ssp. *macarioides* from Central Zaire.

Bematistes aganice montana Butler, 1888. Rather common in forests and heavy woodland of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b (800-

1600 m). Females with very narrow fore wing white band occur at 2000 m on Mt. Sitebi.

Bematistes scalivittata Butler, 1896. One female taken in the Mbisi Forest, Ufipa (2200 m), February 1978.

Bematistes quadricolor itumbana Jordan, 1910. In montane forest of the Mahale Mt. only, at Lukandamira. Very rare. Several males and one female taken August 1970 and August 1971. Record: 1 (1600-2000 m).

Bematistes poggei poggei Dewitz, 1879. Not uncommon in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b (800-2000 m).

Bematistes macarista Sharpe, 1906. Locally common in forests of Mpanda and Kigoma. Record: 1, 3a, 4a, 5a, 8a, 8b, Gombe (800-1500 m).

Bematistes persanguinea Rebel, 1914. Two males taken in the Mihumu forest, Kigoma. September 1968. Very rare. Record: 8a (900 m). General distribution: Kayonza forest, Uganda; Kasai in Zaire.

Bematistes epiprotea Butler, 1874. Dense forests of Kigoma in the sandstone area only. Mukuyu, Mihumu, Kefu, Mugondozi, Mugombazi, northern Ntakatta. Rather common. Record: 5a, 8a, 8b (800-1100 m, 1400 m at Ntakatta).

Bematistes epaea lutosa Suffert, 1904. Rather common in forests of Kigoma and Mpanda. Record: 1, 3a, 4a, 5a, 8a, 8b (800-1200 m, 1500 m in the Ntakatta forest). Differs slightly from typical ssp. *lutosa*. In the Kasekera forest at Gombe the author has taken a male and a female of another race of *epaea*, differing from ssp. *lutosa*.

Acraea pentapolis epidica Oberthür, 1893. Very common in the Kasoge forest from July to October, but not taken anywhere else in the study area. Its foodplant, a *Myrianthus* species, is plentiful in this forest, but very scarce elsewhere. Record: 1 (800-1600 m). The only other place where a few *Myrianthus* trees have been noticed, is at Mihumu and in a forest west of Mt. Kakungu. In February 1978, larvae of *pentapolis* were observed on a *Myrianthus* tree at Mihumu (area 8a).

Acraea cerasa kiellandi Carcasson, 1964. Not common. In forests of Mpanda and Kigoma. Record: 3a, 3b, 5a (1200-1500 m).

Acraea quirina quirina Fabricius, 1781. Forests of Kigoma and Ntakatta in Mpanda. Record: 1, 5a, 8a, 8b, Gombe (800-1400 m).

Acraea kraka Aurivillius, 1893. Fifteen specimens were taken along a riverbed in the Ntakatta forest, in half shade, September 1973, and a few more in 1974. Although Ntakatta has been extensively collected by the writer for several years, none had been seen before.

Acraea terpsichore neobule. Doubleday, 1847. Woodland of Mpanda, Kigoma and Ufipa. Not uncommon. Record: 2a, 3a, 3b, 6, Rukwa basin (800-1200 m).

Acraea admata Hewitson, 1865. Forests of Kigoma and Mpanda at Ntakatta. Common. Record: 1, 4a, 5a, 8a, 8b (800-1200 m, 1500 m at Ntakatta).

Acraea zetes zetes Linnaeus, 1758. Not very common. In woodland of Mpanda, Kigoma and Ufipa. Record: 1, 3b, 4a, 5a, 5b, 6, 8a, 8b, Chala, Gombe (800-2000 m).

Acraea anemosa Hewitson, 1865. Very common in savanna and woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Chala (800-1200 m, 1800 m at Chala).

Acraea pseudolydia astrigera Butler, 899. Not common in savanna of Mpanda

and Kigoma, more common in Ufipa. Record: 3a, 3b, 4a, 6, 8a, 8b, Chala, Rukwa basin (800-1700 m).

Acraea egina harrisoni Sharpe, 1904. Common in forest, open woodland and grassland of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, 9b, Gombe (800-2000 m).

Acraea cepheus abdera Hewitson, 1852. Forests of Mpanda and Kigoma. Rare. Mukuyu, Kasoge, Wanzizi. Record: 1, 3b, 8a (800-1500 m).

Acraea guillemei Oberthür, 1893. Savanna and woodland of Mpanda. Rare. Simbo, Kaliangkulukulu, Kabungu, Kapanda, Sibweza, Nkungwe. Record: Area 6 only (1000-1200 m). Wet season only. January to April. Not found on hills.

Acraea chambezi Neave, 1910. Montane grassland of the Sitebi Mt. and Mt. Ipumba at Mpanda. September 1970 and 1973. First East African records. Record: 5b (2000 m). General distribution: Zambia.

Acraea periphanes Oberthür, 1893. Rather common. Locally very common in woodland and savanna of Mpanda and Kigoma. Record: 1, 3a, 3b, 4a, 4b, 5a, 6, 8a, 8b (800-1300 m, 1700 m at Lukandamira). Forms with and without strong fore wing apical black patch. Also a form lacking discal spots on the fore wing particularly in the females.

Acraea acrita taborensis Le Deux, 1932. Very common in woodland and savanna of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Gombe (800-2000 m).

Acraea chaeribula Oberthür, 1893. Wooded savanna of Mpanda at Sibweza, Wanzizi and on flats south-west of Wanzizi. Rare and very local. August to September. Record: 2b, 3b, 6 (1100-1600 m).

Acraea leucopyga Aurivillius, 1904. One male taken at Chala in Ufipa, May 1972. Open country. Record: Chala (1800 m). General distribution: Southern Tanzania and Tunduma near Mbeya, Zambia and Malawi.

Acraea caldarena caldarena Hewitson, 1877. Common on savanna of Mpanda and Ufipa. Also taken at Mt. Sitebi. Record: 3b, 5b, 6, Chala (1000-1300 m, 2000 m at Sitebi).

Acraea pudorella pudorella Aurivillius, 1898. Not uncommon in woodland and savanna of Mpanda and Ufipa. Record: 6, Chala (ca. 1100 m, 1800 m at Chala).

Acraea rhodesiana Wichgraf, 1909. A single male taken in open woodland at Sibweza. Record: 6 (1100 m). General distribution: Rhodesia. One specimen labelled Dar es Salaam in the National Museum, Nairobi.

Acraea oncaea Hopffer, 1855. Woodland of Mpanda and Kigoma. Common in the Lubalizi valley, rare elsewhere. One record from Ikola by T. H. E. Jackson. Record: 1, 2b, 3a, 4a, Gombe (800-1700 m).

Acraea natalica natalica Boisduval, 1847. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1600 m).

Acraea anacreon bomba Grosse-Smith, 1898. Common in most habitats of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Sumbawanga, Chala, Mbuzi Mt., Gombe (800-1900 m).

Acraea rahira rahira Boisduval, 1833. Not uncommon in swampy plains and riversides of Mpanda and also at Lukandamira in Kigoma. Record: 1, 6, 7 (800-1100 m, 1600 m at Lukandamira).

Acraea encedon Linnaeus, 1758; forms *daira* G. & Salvin, 1884; *infuscatoides* Le D., 1931; *lycioides* Le D., 1931. Very common in most habitats of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Chala, Gombe (800-1700 m).

Acraea goetzi Thureau, 1903. Forest margins and grassland of Ufipa highland. Common. Record: Mbizi forest, Chulwe Mt., Chala Mt., Mbuzi Mt. (1600-2000 m).

Acraea bonasia bonasia Fabricius, 1775. Forests of Mpanda and Kigoma. Not common. Local. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b (800-2000 m).

Acraea sotikensis sotikensis Sharpe, 1891. Common in forests of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 8a, 8b, 9b, Chala, Mbizi Mt. (800-2200 m).

Acraea cabira Hopffer, 1855. Heavy woodland and forest margins of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, 9a, Chala, Gombe (800-2000 m).

Acraea acerata Hewitson, 1874. Common in woodland and riverine forests of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, Chala, Mbuzi Mt. (800-1700 m, 2000 m in Ufipa).

Acraea eponina Cramer, 1780. Very common in most habitats of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m).

Acraea ventura Hewitson, 1887. Not uncommon in forests, grassland along rivers and open woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 5a, 5b, 6, 9b, Mbuzi Mt. (1000-1700 m, 2000 m at Mbuzi Mt.).

Acraea pharsalus pharsalus Ward, 1871. Common in forests and heavy woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, Kigoma, 8b, Mbuzi Mt. (800-2000 m).

Acraea perenna perenna Doubleday & Hewitson, 1847. Common in forests and heavy woodland of Mpanda and Kigoma. Record: 1, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-2000 m).

Acraea peneleos pelasgius Grosse-Smith, 1900. Forests of Kigoma and probably Mpanda in the north. Not common. Record: 1, 8a, 8b (800-1000 m). General distribution: Cameroun to Zaire, Uganda and W. Kenya.

Acraea penelope penelope Staudinger, 1896. Forests of Kigoma and probably Mpanda in the north. Rare. Record: 8a (900 m). General distribution: Zaire to Uganda and W. Kenya.

Acraea ntebiae kigoma ssp. nov. (pl. 10 figs. 37-42). Differs from the nominate subspecies in the very variable colour of the underside; in some males the colour is as in the nominate subspecies, in others ochreous brown; upperside fore wing median spots creamy, in some of the females hind wing ground colour orange red and the spots in the fore wing space 2 and cell red. Females with ground colour invading the broad, black marginal band in streaks nearly to the margin.

Habitat. Forests of the Mahale Mt. Mainly at high levels.

Holotype ♂. Tanzania, Kigoma, Lukandamira, 1600 m, 17. viii. 1970, J. Kielland. Allotype ♀ : as holotype. Paratypes: 4 ♂ and 7 ♀ same data; 2 ♂ same, but 1.xi. 1972; 1 ♂ Kigoma, Ntondo, August 1971. Holotype, allotype and paratypes in the National Museum, Nairobi; further paratypes in the British Museum (Nat. Hist.), London, and J. Kielland collection.

Acraea servona rhodina Rothschild & Jordan, 1905. Forests of Mpanda and Kigoma. Not very common. Record: 3a, 4a, 5a, 5b, 8a, 8b (800-1500 m).

Acraea oreas oreas Sharpe, 1891. Forests of Mpanda, Kigoma and Ufipa. Rather common. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 8a, 8b, Mbizi forest, Gombe (800-2000 m).

Acraea cinerea Neave, 1904. Collected by the Japanese expedition at Mahanga in Kigoma, by T. H. E. Jackson's African collector Watulege at Mahale. Record: 1, 8a. Altitude not specified.

Acraea quirinalis Grosse-Smith, 1900. A few specimens taken in the Ntakatta forest flying along a riverbed and settling on wet sand. Very rare. Record: 5a (1400-1500 m). General distribution: Forests from eastern Zaire to Uganda, W. Kenya and Tanzania in the Usukuma area.

Acraea amicitiae amicitiae Heron, 1909. Montane forest of the Mahale Mt. only. Record: 1 (1600-2000 m). General distribution: Burundi and Ruanda to W. Uganda.

Acraea alciope alciope Hewitson, 1852. Forests of Mpanda and Kigoma. Not common. Record: 3a, 3b, 4a, 5a (1200-1500 m).

Acraea jodutta jodutta Fabricius, 1793. Forests of Mpanda and Kigoma. Not common. Record: 1, 3a, 3b, 4a, 5a, 8a, 8b (800-1600 m).

Acraea esebria Hewitson, 1861. Forests of Kigoma and Mpanda. Common. Record: 1, 3a, 3b, 4a, 5a, 8a, 8b, Gombe (800-1600 m).

Acraea lycoa bukoba Eltringham, 1911. Rather common in forests of Mpanda and Kigoma. Record: 1, 3a, 4a, 5a, 8a, 8b (800-1300 m).

Acraea johnstoni johnstoni Godman, 1885. Common in forests of Mpanda, Kigoma and Ufipa. Record: 1, 3a, 3b, 4a, 4b, 5a, 5b, Chulwe Mt. (800-2000 m). Form *octobalia* Karsch, 1894, at Lukandamira and Ntongo.

Pardopsis punctatissima Boisduval, 1833. In woodland at Sibweza, along the Uwinza road, Luntampa and at Mihumu. Very local and sporadic. Record: 4a, 6, 8a, 9a, 9b (1060-1400 m).

Family Libytheidae

Libythea labdaca labdaca Westwood, 1851. Forests of Mpanda and Kigoma. Not common. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1800 m).

Family Riodinidae

Abisara neavei mahale ssp. nov. (text-fig. 30, pl. 14 figs. 54, 55). Resembling the Cameroun race *latifasciata* Riley, 1931, in the wide, white discal band of both wings, but in ssp. *mahale* the band is still wider, the hind wing ocellar yellow ring is situated further from the margin, 0.8-1.1 mm in *mahale*, 0.5-0.6 mm in other subspecies. On the underside of fore and hind wing subbasal and subternal bands narrower and fainter than those of the nominate race. The sexes are similar, but the wings of the female are broader and more rounded than in the male. Length of fore wing ♂ 21 to 22 mm, ♀ 21.5 mm. Genitalia ♂ same as ssp. *neavei*.

Habitat. A somewhat weak, skipping flight amongst forest undergrowth, on which it frequently settles.

Holotype ♂ : Tanzania, Kigoma, Kasoge, 7.vi.1968, J. Kielland. Allotype ♀ : as holotype, 26.x.1967. Paratypes: 8 ♂ and 1 ♀ of same data and collector. Holotype, allotype and paratypes in the National Museum, Nairobi, further paratypes in the British Museum (Nat. Hist.), London, and J. Kielland collection. This subspecies is very common in the Kasoge forest on the western slope of Mt. Kungwe in the Mahale Mt. range (800-1600 m) and has been taken at all times of the year. On the eastern slope of the Mahale Mt. only a few specimens were collected at Lukandamira, 1600 m. Away from Mahale, no trace has so far been found of this race.

Family Lycaenidae

Recent authors tend to divide this very large group of *Rhopalocera* into many subfamilies; H. K. Clench (see Fox et al., 1965) even divides them into three separate families, viz., Liptenidae, Liphyridae and Lycaenidae. There are still many uncertainties and disagreements amongst specialists regarding the classification of the Lycaenidae. In the following classification I have followed Eliot (1973), who divided the family into 8 subfamilies of which 6, namely Lipteninae, Liphyrinae, Miletinae, Theclinae, Lycaeninae and Polyommattinae are represented in Africa.

Subfamily Lipteninae

Alaena aurantiaca Butler, 1883. Occurring in the Ufipa area and also taken by the Japanese Exp. at Mihumu and by the author near Mugombazi river. Very rare and local. Record: 8a, 8b, Ufipa (in Kigoma 900-1200 m; in Ufipa not specified). General distribution: Zambia.

Alaena kiellandi Carcasson, 1965. Very local, but sometimes rather common in Mpanda and Ufipa. Mainly taken in December and a second generation sometimes occurs in March. In open woodland, settling on rocks and grass. Sibweza, Sitwe, Lugala Hill, Lungerengere, Chala. Record: 3a, 6, Chala in the ravine of Mtozi river (1100-1600 m).

Alaena reticulata Butler, 1896. Montane grassland of Mt. Sitebi in Mpanda, 3 ♂ and 1 ♀, 20.xii. 1970. Record: 5b (1950 m). General distribution: Mbeya in Tanzania and Malawi.

Alaena bicolora Bethune Baker, 1924. Recorded by T. H. E. Jackson. Taken by his collector Watulege in the Mpanda area. Record: no place or altitude specified.

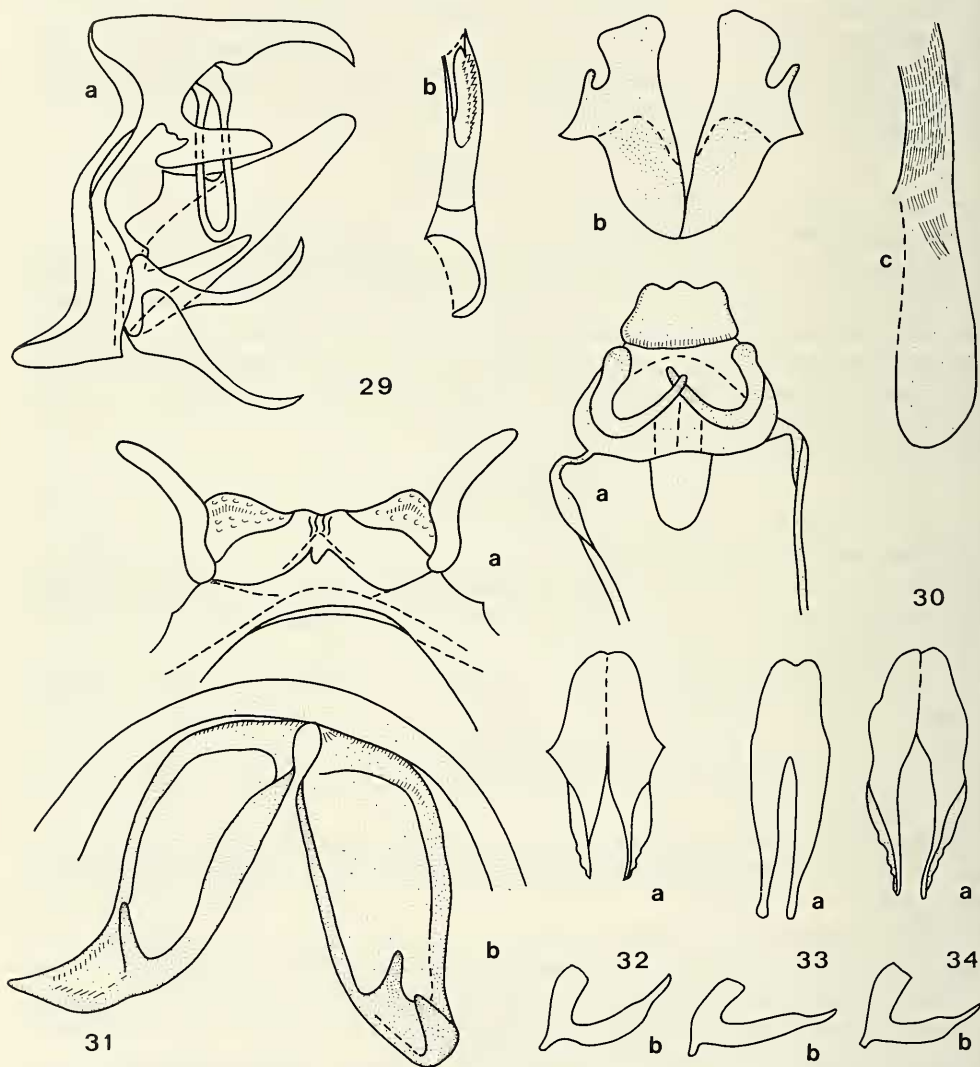
Alaena spec. Two males and one female taken flying in a rocky place on a *Brachystegia* clad hill close to Ntakatta. Record: 5a (1300 m).

Pentila inconspicua Hamilton H. Druce, 1910. Common in forests in Kigoma. Record: 2a, 3a, 4a, 5a, 8a, 8b (1000-1500 m).

Pentila nyassana clarensis Neave, 1903. Common in heavy woodland, forest margins and clearings of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1500 m).

Telipna sanguinea kigoma ssp. nov. (pl. 11 figs. 43-45). Closest to the nominotypical race from W. Africa and Zaire, but larger in both sexes; wings, upperside

ground colour paler; size of the subapical white patch of the fore wing intermediate between ssp. *sanguinea* and ssp. *depuncta* Talb., 1937, from Uganda. The apical black area more extended than in the other two races; inner margin of the black area irregular and sharply angled basad, along vein 2, more so than in ssp. *sanguinea*. Underside hind wing differs from the nominate race in the two long, costal transverse streaks which are situated a little further apart. In the female the streaks are



Figs. 29—34. Male genitalia of Nymphalidae and Lycaenidae. 29, *Pseudathyma plutonica expansa* ssp. n., holotype, Ntakatta forest, Mpanda, 1400 m, no. 1424; a, genitalia without aedeagus; b, aedeagus. 30, *Abisara neavei mahale* ssp. n., holotype, Kasoge, Mahale, Kigoma, no. 510; a, tegumen-uncus; b, valva; c, aedeagus. 31, *Iolaphilus montana* sp.n., paratype, Ujamba, Mahale, Kigoma, 2000 m, no. 406; a, tegumen-uncus; b, valva. 32, *Virachola diocles* Hew., Chala, Ufipa, no. 1407; a, valva; b, subunci. 33, *Virachola lorisona* Hew., Uluguru Mt., Morogoro, no. 1620; a, valva; b, subunci. 34, *Virachola ufipa* sp. n., paratype, Chala, Ufipa, no. 1408; a, valva; b, subunci.

more extended towards the tornus, only 1.5 mm from the marginal, black border area; in the females of the two other races this distance is 4 mm. Length of fore wing ♂ 25 mm, ♀ 28 mm.

Habitat. Riverine forest, particularly close to rivers, in half shade. Sitting for long periods on the vegetation and flying up only when disturbed. The flight is rather weak and reminds of the black and red Arctiid moths. Flight period from early rainy season in November till the end of the rains in early May. Record: 3a, 4a, 5a, 8a, 8b (900-1400 m).

Holotype ♂ : Tanzania, Kigoma, Lubalizi, 6.iii. 1970, J. Kielland. Allotype ♀ : Same, but 11.iii.1970. Paratypes: Same, but 7.iii.1970, 2 ♂ ; same, but March 1970, 2 ♀ ; Kefu, February 1972, 3 ♂ , 1 ♀ ; same, but January 1972, 1 ♂ ; same, but April 1972, 1 ♀ ; same, but January 1973, 2 ♀ ; Ntakatta, 11.vi. 1974, 1 ♀ ; Mihumu, 18. xi. 1971, 1 ♀ . Holotype, allotype and paratypes in the National Museum, Nairobi, further paratypes in the British Museum (Nat. Hist.), London, and in J. Kielland collection.

Ornipholidotos peucetia peucetia Hewitson, 1866. Local, but sometimes common in heavy woodland and forest of Mpanda and Kigoma. Record: 2a, 6, 8a (800-1200 m).

Ornipholidotos overlaeti Stempffer, 1947. Very local and scarce in riverine forests of Lubalizi, Ntakatta and Kefu. Rainy season only. Record: 3a, 5a, 8a, 8b (900-1200 m). General distribution: Kenya and Uganda to Zaire.

Mimacraea krausei obsolescens Hawker Smith, 1926. Not uncommon, but local, in riverine forests of Mpanda and Kigoma. Record: 2b, 3a, 4a, 6, 8a (900-1350 m). Ovipositing on tree-trunks five feet above the ground. This species was listed as *M. skoptoles* Ham. H. Druce by Carcasson (1966) and by Kielland (1968). According to Stempffer it should be *krausei*.

Mimacraea marshalli marshalli Trimen, 1898. Not uncommon, but local in *Brachystegia* woodland of Mpanda and Ufipa. Record: 3b, 5a, 6, 9b, Chala (1200-1700 m).

Baliochila hildegarda Kirby, 1887 (= *Teriomima aslauga* Trim. f. *hildegarda*). Not uncommon in woodland of Mpanda and Kigoma. Record: 2a, 3a, 3b, 4a, 4b, 5a, 5b, 8a, 8b (800-1500 m). Very variable and easily mistaken for other species. Reliable identification only by dissection of the genitalia. The uncus of specimens from western Tanzania differs somewhat from those of specimens from the eastern, central and southern part of the country. It possibly indicates that several races are involved.

Baliochila lipara Stempffer & Bennet, 1953. One female taken by the Japanese Exp., December 1961, at Mukuyu. Record: 8a (ca. 900 m). General distribution: Rhodesia, Zambia, Malawi, Kenya and East Tanzania.

Cnodontes vansomereni Stempffer & Bennet, 1953. In woodland and savanna of Mpanda. Not common. Record: 6 (1050-1200 m).

Toxichitona gerda Kirby, 1890. In montane forest at Mt. Sitebi in Mpanda. One specimen only, sent to Dr. Stempffer in Paris. Record: 5b (1900 m). General distribution: Uganda.

Liptena xanthostola Holland, 1890. Common in riverine forests of Kigoma and Mpanda. Record: 2a, 3a, 4a, 5a, 8a, 8b (900-1500 m). General distribution: W. Africa to Zaire and Uganda.

Liptena ideoides Dewitz, 1886. Bushland along forest margins of Kigoma and into

Mpanda at Luegele river. Not uncommon. Record: 1, 2a, 3a, 4a, 5a, 8b (900-1400 m).

Liptena ilma ugandae Stempffer, 1964. In dark places of the Kasoge forest only. Record: 1 (800-1000 m). General distribution: ssp. *ugandae*, Uganda; ssp. *ilma*, W. Africa to Zaire. The Kasoge specimens differ somewhat from ssp. *uganda*.

Larinopoda tera Hewitson, 1873. Flying locally in undergrowth of forest at Mihumu, Kefu and Mugondozi rivers. Sandstone area only. Record: 8a, 8b (800-1000 m). General distribution: W. Africa to Uganda.

Epitola miranda vidua Talbot, 1935. One female, June 1968, in riverine forest of Lubalizi; one male Kefu forest, February 1971; one male, Ntakatta forest. Record: 3a, 5a, 8b (800-1600 m). General distribution: ssp. *vidua*, Uganda to Moyen Congo; ssp. *miranda*, Ivory Coast.

Epitola pseudoconjuncta Jackson, 1962. A few specimens taken in the following forests: Lubalizi, Kasha near Kefu, Ntakatta. Early morning and sometimes late afternoon. Record: 3a, 5a, 8b (1000-1500 m).

Epitola kamengensis Jackson, 1962. January 1962 1 ♂ taken in a Lubalizi forest, other specimens observed; also males observed whirling over tops of bushes at forest margin at Kapapa. Sent to Dr. Carcasson. Record: 3a, at 4a observed, 8b (1200 m). General distribution: Uganda, W. Kenya. Early morning.

Epitola katera Jackson, 1962. One male taken February 1973 at the edge of the Kefu forest, Kigoma and observed in the Ntakatta forest, early morning. High flying species in tree tops and very difficult to catch. Record: 5a observed, 8b (900 m, 1400 m at Ntakatta). As the specimen taken differs somewhat from *katera*, it may represent a new race, or even an undescribed species.

Deloneura ochrascens littoralis Talbot, 1935 (acc. to Carcasson, pers. comm.). Not common. In woodland of Mpanda and Kigoma; Nkungwe, Simbo, Ntakatta, Mihumu, Mugombazi. Record: 5a, 6, 8a, 8b (900-1700 m).

Deloneura subfusca Hawker Smith, 1933 (= *innesi* van Son, 1949). Woodland at Simbo in Mpanda. Very rare. Record: 6 (1200 m). General distribution: Katanga and Malawi.

Hewitsonia similis ugandae Jackson, 1962. One female taken in a Mihumu forest. Record: 8a (900 m). General distribution: Ivory Coast, Gabon, Ghana, to Zaire and Uganda.

Subfamily Liphyrinae Doherty, 1889

Euliphyra species near *leucyanea* Hewitson, 1874. One female at riverine forest margin, Lubalizi (3a), 1150 m, 30.xi.1970. The specimen flew before sunrise and showed a peculiar behaviour. It soared up from the ground into the air and then fluttered down like a dead leaf. It is larger than *E. leucyanea*, ground colour upperside sooty brown with a pale area in the middle of the fore wing; colour and shape of the hind wing as in *E. leucyanea*; underside similar to that of *E. leucyanea*, but bands narrower and tending to be divided into round spots, while in *E. leucyanea* the bands are more contiguous. *E. leucyanea* occurs from Sierra Leone to Cameroun.

Aslauga vininga Hewitson, 1875. One male May 1971, several males and two females May 1972, taken in the Kefu forest. Settling on forest vegetation. Record: 8b (800-900 m). General distribution: West Africa to Uganda. The Tanzania speci-

mens are larger than specimens from other parts of Africa.

Aslauga lamborni Bethune Baker, 1913. One female taken in the Kasekera forest at Gombe, December 1972; one female at Ntakatta. Record: 5a, Gombe (900 and 1400 m). General distribution: W. Africa to Uganda.

Aslauga purpurascens marshalli Butler, 1898. Not uncommon in woodland of Mpanda and Kigoma. One female taken in riverine forest of Lubalizi. Record: 3a, 4a, 4b, 5b, 6, 8b (1000-2000 m).

Subfamily Miletinae Corbet, 1939

Spalgis lemolea H. H. Druce, 1890. Common in heavy woodland and forest of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Biharamulo (800-1700 m).

Spalgis jacksoni Stempffer, 1967 (acc. to Stempffer). Flying along a stream in the Kasha forest north of Kefu; settling on leaves of small trees and on wet sand; January 1972 and 1973. Record: 8b (1000 m). General distribution: Bwamba forest and Mongiro in Uganda.

Lachnocnema bibulus Fabricius, 1793. Common in *Brachystegia* woodland of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, 9a, 9b, Gombe (800-1700 m).

Lachnocnema durbani Trimen, 1887. In woodland and riverine forests of Mpanda and Kigoma. Not common. Record: 1, 3a, 4a, 5a, 5b, 8a, 8b (800-1600 m).

Lachnocnema spec., probably *divergens* Gaede, 1915. A male and a female of a larger species taken at Simbo in Mpanda. Sent to Dr. Stempffer in Paris. Record: 6 (1100 m). General distribution of *L. divergens*: Uganda, Kenya, and Amani in Tanzania.

Subfamily Theclinae Swainson, 1831

Myrina silenus ficedula Trimen, 1879. Near *Ficus* trees at Sibweza and in open grassland near Mweze. Record: 1, 3a, 4a, 5a, 5b, 6, Ufipa, Gombe (800-1750 m).

Oxylides faunus albata Aurivillius, 1895. Rather common in forests of Mpanda and Kigoma. Particularly in the sandstone area. Record: 1, 2a, 4a, 5a, 5b, 8a, 8b (800-1500 m). General distribution: Zaire to Uganda.

Aphnaeus orcas Drury, 1782, ssp. near *hollandi* Butler, 1902. Flying sparingly in forests of Mpanda and Kigoma, Kasoge, Ntobo river near Mt. Sitebi, Lubalizi, Mihumu, Ntakatta. Record: 1, 3a, 5a, 5b, 8a (800-2000 m).

Aphnaeus marshalli Neave, 1910. Taken by the Japanese Exp. at Mihumu and one male at Kampisa by the writer. Extremely rare. Record: 5b, 8a (ca. 900 m). General distribution: Rhodesia to Zambia and Katanga.

Aphnaeus eriksoni kiellandi Stempffer, 1973. Mainly in open habitats of Mpanda and Kigoma and one male at Chala in Ufipa. Mt. Sitebi, Mt. Kafulungu. Also taken on *Brachystegia* clad hill at Nkungwe on flowering shrub. Not uncommon. Record: 3a, 4a, 5b, 6, Chala (1150 m at Nkungwe, 1900 m at Kafulungu and Sitebi).

Aphnaeus flavescens flavescens Stempffer, 1954. One large female taken on wet sand at Lubalizi river, September 1971. This is an extremely rare species. Record: 3a (1150

m). The specimen is larger than the types; length of forewing 23.5 mm.

Spindasis natalensis Westwood, 1852. *Brachystegia* woodland of Mpanda. Not uncommon. Record: 3b, 6 (1000-1500 m).

Spindasis nyassae Butler, 1884. Woodland of Mpanda at Nkungwe. Record: 6 (1100 m).

Spindasis victoriae Butler, 1884. Woodland of Mpanda and Kigoma. Common. Record: 3a, 4a, 5b, 6, 8a, 8b, Gombe (900-2000 m).

Spindasis apelles Oberthür, 1878. Mainly open montane habitats, but also woodland of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2b, 3a, 3b, 5a, 5b, 8a, 8b, Mbuzi Mt., Chala (900-2000 m).

Spindasis nairobiensis Sharpe, 1904. Woodland of Mpanda and Kigoma. Uncommon. Record: 2b, 3a, 3b, 5b, 6, 8a, 8b (900-2000 m).

Spindasis mozambica Bertoloni, 1851. Woodland and open grassland of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Chala, Gombe (900-2000 m).

Spindasis trimeni Neave, 1910. Common in woodland of Mpanda, Kigoma and also taken at Muze in Ufipa. Record: 3a, 3b, 5b, 6, Muze (1000-2000 m).

Spindasis homeyeri Dewitz, 1886. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Rather common. Record: 1, 3a, 3b, 5b, 4a, 8b, Ufipa highland (900-2000 m).

Spindasis ella Hewitson, 1865. Savanna and *Brachystegia* woodland of Mpanda at Nkungwe. Rare. Record: 6 (1050 m).

Spindasis brunnea Jackson, 1965. (Carcasson, personal communication). Taken in open habitat at Lubalizi river and at Sitebi Mt., 1 ♂ and 1 ♀. Record: 3a, 5b (1200 and 1700 m).

Spindasis menelas H. H. Druce, 1907. Riverine forest. One female taken on vegetation at Katuma river near Mt. Sifuta. Extremely rare; known from Nigeria. Male unknown. Record: 5b.

Spindasis crustaria Holland, 1890. Evergreen forests at Kasoge, Mihumu and Gombe. Record: 1, 8a, Gombe (800-950 m).

Lipaphnaeus loxura Rebel, 1914. Common in the Kasoge forest of Kigoma, but elsewhere scarce. Record: 1, 4a, 5a, Gombe (800-1700 m).

Lipaphnaeus aderna spindasoides Aurivillius, 1915. Forests of Mahale, Sitebi and Mbuzi Mt. in Ufipa. Local. Record: 1, 5b, Mbuzi Mt. (1600-2000 m).

Chloroselas argentea Riley, 1932. Woodland of Mpanda. Uncommon. Record: 5b, 6, 7 (1000-1500 m). General distribution: Rhodesia.

Chloroselas minima Jackson, 1965. Woodland of Mpanda. Rare. Record: 6, 7 (900-1100 m).

Chloroselas overlaeti Stempffer, 1956. Taken by T. H. E. Jackson's collector Watulege in Mpanda, by Zuzuki of the Japanese Exp. at Mihumu and by the writer near Kigoma. Very rare. Record: 8a, Mpanda, Kigoma just east of town (altitude not specified).

Chloroselas pseudozeritis tytleri Riley, 1932. This species occurs in Zambia and northern and eastern parts of Tanzania and probably also in Mpanda and Kigoma areas. Likely habitat: the Rukwa valley.

Axiocerses bambana Smith, 1900. Woodland and savanna of Mpanda, Kigoma and

Ufipa. Very common. Record: widespread (800-2000 m). Numerous specimens of *bambana* have been dissected. *A. bambana* is very variable and the genitalia also vary to some extent, but apparently not in accordance with external variation. It is therefore not probable that this name covers more than one species. Specimens examined from other parts of Tanzania, viz., Oldeani, Arusha, Singida, Morogoro, Mikumi, Ruaha and Ngara, were all *bambana*.

Axiocerses amanga Westwood, 1881. Woodland and savanna of Mpanda, Kigoma and Ufipa. Less common than *A. bambana*. Record: widespread (800-1700 m).

Aloeides conradsi angoniensis Tite & Dickson, 1973. Open habitats of Mpanda and Kigoma. Particularly at high levels, in August to September. Very rarely taken in the rainy season. Record: 2a, 3a, 3b, 5a, 5b, 6, 8a, at the ridge of Kararumpeta Mt. (1000-2000 m).

Aloeides molomo kiellandi Carcasson, 1961. Open montane grassland of Mpanda and Kigoma. Locally common. August to September only. Record: 2a, 3a, 3b, 4a, 5b (1200-2000 m).

Iolaus bolissus aurora Clench, 1964. Riverine forests and forest margins of Mpanda and Kigoma. Not uncommon. Record: 1, 3a, 4a, 5a, 5b, 8a, 8b (800-1700 m). General distribution: Uganda to Zaire, W. Africa and Angola.

Stugeta bowkeri subinfusata Grünberg, 1910. Scarce in woodland of Mpanda and Kigoma. Record: 3a, 6, 8b (1000-1700 m).

Argiolaus crawshayi littoralis Stempffer, 1958. One female July 1970, Chala; one female May 1971, Ntondo at Mahale. Record: 1, Chala (1700 m).

Argiolaus silas silarus H. H. Druce, 1885. Woodland and forest margins of Mpanda. Record: 3b, 5a, 6 (1050-1400 m).

Iolaphilus paneperata Druce, 1890. Riverine forests of Mugondozi, Mihumu and Ntakatta. Rare. Record: 5a, 8a, 8b (1000-1400 m). General distribution: W. Africa to Zaire.

Iolaphilus trimeni Wallengren, 1875. *Brachystegia* hills at Nkungwe in the Lubalizi valley and at Mt. Sitebi. Rare. Record: 3a, 5b, 6 (1150-2000 m).

Iolaphilus ndolae Stempffer, 1958. One male of this rare species was taken in a montane forest of the Mbizi Mt., 10 miles east of Chala. The female has not yet been described. Record: Mbuzi Mt. (2000 m), August 1973. General distribution: Zambia.

Iolaphilus montana spec. nov. (text-fig. 31, pl. 11 figs. 46-49). Male. Underside body white; legs white; head black above, white below, one faint white spot on vertex top, one faint white spot just above each eye; frons black, edged with white, finely dorsad, broadening ventrad; palpi second segment very long, first and second segment white, last segment black, finely sprinkled with white near base laterally and ventrally; all segments narrowly black dorsally; antennae missing. Upperside fore wing iridescent greenish blue, black border indented, at vein 2 two mm wide, in 1b three mm, broadening apically, 1.5 mm wide at basal half of costa. Inner margin lobed just opposite sexual spot of hind wing; basal part of costa strongly convex. Upperside hind wing iridescent greenish blue, costa and margins black, 1.5 mm wide; a red, black bordered, tornal spot, a blue streak in 2, a brown androconial patch partly in subcostal area partly in cell. Underside fore wing white, an ochreous submarginal line slightly curving inwardly towards apex; margin finely bordered in black; cilia white and sprinkled with black; an ochreous sexual hair tuft in space 1b.

Underside hind wing white; a straight, ochreous line from red submarginal spot in 2 to vein 8, at 2/3 from base to apex; a wavy, black subtornal line from vein 1b to near vein 2; a tornal red and black spot and a submarginal red spot in 2; a faint dusty submarginal area, widest in 4 and 5. Length of fore wing 20 mm.

Genitalia. Uncus composed of two triangular lobes, separated by a gentle median depression; in the middle of this, two small rounded knobs; subunci robust, gently curved, bluntly tipped; vinculum broad, one to two small triangular dentations near tegumen; valva ovaloid, tapering to a blunt apical tooth; two-third from base on the ventral margin, an equally blunt, inwardly directed, strong tooth; aedeagus widely open dorsally; vesica enclosing one long, spine-like cornutus; a short, thorny protuberance apically on the right side; lower fultura very robust.

Female. Head and palpi as in the male; antennae black. Upperside fore wing dark sky-blue basally up to middle of cell and along hind margin, invading 1b; a large median, white area, invaded by blue scales, particularly along the veins; costa black; apex and outer margin broadly black.

Upperside hind wing ground colour sky-blue, darker close to base and paler distally; costa and inner half of area 6 whitish gray; apex and margin black; a large red blotch in 1b, conjoining another in 2; anal lobe carmine red; discal black spots in 1b, 2, 3, 4 and 5 in a straight line; the area between the discal spots and the black margin, whitish blue; a long, black, white bordered tail at vein 1b. The specimen is very worn along the edges and the tail at vein 3 is missing; the margin forms a tooth at vein 3.

Underside wings as in the male; the wavy, black, subtornal line extended in area 2 as a separate streak. Length of fore wing 23.5 mm.

Habitat. Frequents the margins of montane forests. Rare and local. Record: 1, 3b, 5b (1450-2200 m).

Holotype ♂ : Tanzania, Mpanda, Wanzizi Hills, 1450 m, J. Kielland. Allotype ♀ : Same, but Mt. Sitebi, 2000 m. Paratypes: Kigoma, Mahale, Ujamba, 2000 m, 1 ♂ ; Kigoma, Sisaga Mt, 2200 m, November 1971, 1 ♀ ; Mpanda, Kampisa, 1500 m, August 1973, 1 ♂ , same, but July 1972, 1 ♀ . All J. Kielland. Holotype and allotype in the National Museum, Nairobi, paratype ♂ in the British Museum (Nat. Hist.), London, and other paratypes in J. Kielland collection.

Philiolaus parasilanus parasilanus Rebel, 1914. Three males and one female taken on bushes in woodland close to a riverine forest at Mihumu, November 1971. Record: 8a (ca. 900 m). General distribution: W. Africa and Zaire to Uganda and Kenya.

Aphniolaus pallene Wallengren, 1857. Woodland and savanna of Mpanda and Kigoma. Not common. Record: 2b, 3a, 3b, 6, 8a, 8b (1000-1600 m).

Epamera violacea Riley, 1928. Riverine forest margins at Kampisa, Mt. Sitebi, Mt. Ipumba. Very local. Record: 5b, 8b (900-2000 m). General distribution: Angola to Zaire, Rhodesia and Malawi.

Epamera scintillans Aurivillius, 1905. Wooded hills of Nkungwe in Mpanda. Rare. Record: 6 (1150 m). General distribution: W. Africa to Uganda and Sud Bahr el Ghasal.

Epamera australis Stevenson, 1937. One female taken at forest margin of Wanzizi Hills. Record: 3b (1500 m). General distribution: Rhodesia and Zambia to Zaire.

Epamera pseudopollux Stempffer, 1962. Forest margins of Kampisa, Sitebi and

Ipumba Mts. Very local. Record: 5b (1500-2000 m). General distribution: Kigezi in Uganda.

Epamera pseudofrater Stempffer, 1962. Forests of Mihumu, Kefu, Ntakatta, Kampisa, Mahale. Rare. Record: 1, 5a, 5b, 8a, 8b (900-1600 m). General distribution: Kigezi and Kayonza forests in Uganda.

Epamera sidus Trimen, 1864. Woodland and open grassland of hills and mountains. Record: 5a, 5b, 6, 8a, 8b (900-1900 m).

Epamera alienus alienus Trimen, 1898. Two males taken on summit of Mt. Sitebi, in open short grassland with stunted and scattered vegetation, September 1970 and September 1971. Record: 5b (2050 m). General distribution: From Transvaal to Rhodesia, Zambia, Mozambique, Malawi and Songea in Tanzania; ssp. *bicaudatus* Aur., 1905, from Cameroun, Nigeria and Upper Volta; ssp. *uganda* St., 1953, from Uganda and Kenya.

Epamera aphnaeoides aphnaeoides Trimen, 1873. One female taken at Mtozi river near Chala in Ufipa. Record: Chala (1700 m).

Epamera fontainei Stempffer, 1956. One male and one female taken in the Kefu forest. February 1972. Extremely rare. Record: 8b (900-1000 m). General distribution: W. Africa to Zaire.

Etesiolaus catori cottoni Bethune Baker, 1908. Forest margin in the Lubalizi valley, 1♂, 2.viii.1970; Ntakatta forest, 1♂, February 1972. Extremely rare. Record: 3a, 5a (1150-1500 m). General distribution: Zaire to Uganda and at Usambara in Tanzania.

Hemiolaus caeculus caeculus Hopffer, 1855. Woodland of Mpanda and Kigoma. Locally common. Record: 3a, 6, 8b (1000-1200 m).

Hypolycaena hatita ugandae Sharpe, 1904. Rather common in forests of Mpanda and Kigoma. Record: 1, 2a, a, 3b, 4a, 5a, 5b, 8a, 8b, 9b, Gombe (800-1600 m, 2000 m at Mt. Sitebi).

Hypolycaena antifaunus latimacula Joicey & Talbot, 1921 (1924). Common in forests and also in heavy woodland of Mpanda and Kigoma. Record: 1, 2a, 3a, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1500 m). General distribution: W. Africa to Uganda.

Hypolycaena nigra Bethune Baker, 1914. Forests of the sandstone area. Mukuyu, Kefu, Mugondozi, Ntakatta. Record: 4a, 5a, 8a, 8b (850-1000 m). General distribution: W. Africa to Uganda.

Hypolycaena dubia Aurivillius, 1895. Several males and females taken in riverine forests at Mukuyu, Kefu, Kasoge, Ntakatta, Luntampa and Gombe. Not common. Record: 1, 4a, 5a, 8a, 8b, Gombe (800-1300 m). General distribution: W. Africa to Zaire and Uganda.

Hypolycaena liara plana Talbot, 1935. Common in forests and heavy woodland of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m, 2000 m at Mt. Sitebi). Form *obscura* St., 1947, occurring at Kasoge, Kefu, Luntampa and at Gombe. This form is nearly always smaller than the typical form.

Hypolycaena auricostalis Butler, 1897. Common in woodland and open grassland of Mpanda, Kigoma and Ufipa. Particularly at higher levels. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Chala, Mbuji Mt. (1050-2000 m).

Hypolycaena philippus Fabricius, 1793. Very common in open habitats and wood-

land of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Ufipa, Gombe (800-1800 m).

Hypolycaena buxtoni buxtoni Hewitson, 1874. Common in open habitats and woodland of Mpanda, Kigoma and Ufipa. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Ufipa, Gombe (900-2000 m).

Hypomyrina nomenia nomenia Hewitson, 1874. Rather common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Actis mimetica mimetica Karsch, 1895 (= *perigrapha* Karsch, 1895). In riverine forests of Mpanda and Kigoma. Sitebi, Utobo river near Sitebi, Ntakatta and Lukan-damira. Uncommon. Record: 1, 5a, 5b (1400-1700 m). General distribution of ssp. *mimetica*: Uganda and Kenya.

Hypocopelates otraeda otraeda Hewitson, 1863. Not uncommon in forests of Mihumu, Mukuyu to Mugombazi and a few specimens taken in the Ntakatta forest. Sandstone area only. Record: 5a, 8a, 8b (800-1100 m, 1500 m in the Ntakatta forest). General distribution: Zaire to Uganda; ssp. *modesta* Talbot, 1935, Ivory Coast to Cameroun.

Hypocopelates kafuensis Neave, 1910. *Brachystegia* woodland of Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b (800-1600 m, 2000 m at Mt. Sitebi).

Pilodeudorix cameroni Plötz, 1880. Not uncommon in woodland and forest margins of Mpanda and Kigoma. Record: 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (900-2000 m).

Pilodeudorix diyllus orientalis Stempffer, 1957. Rather uncommon in woodland and forest margins of Mpanda and Kigoma. Record: 6, 8a, 8b (1000-1200 m). General distribution: Nominotypical race from W. Africa; ssp. *orientalis* from Katanga to Uganda.

Pilodeudorix zeloides Butler, 1901 (= *P. zela zeloides* Hewitson, 1869). Open habitats of Sitwe, Sitebi and Mahale, on stunted trees and bushes. Uncommon. Record: 1, 3a, 5b, Gombe (900-1900 m). General distribution: Rhodesia to Malawi.

Pilodeudorix caerulea caerulea H. H. Druce, 1890. Not uncommon in woodland of Mpanda and Kigoma. Record: 2a, 3a, 3b, 4a, 5a, 5b, 6, 8b (1000-1500 m, 2000 m at Mt. Sitebi).

Pilodeudorix zelomina Rebel, 1914. Three females taken December 1970 in a forest at Mt. Sitebi. Record: 5b (1900 m). General distribution: Burundi, Uganda.

Diopetes corruscans Aurivillius, 1897. Females rather common in the Kefu forest; males rarely seen. Also taken at Mugondozi river and in the Ntakatta forest. Sandstone and bordering area only. Record: 5a, 8b (900-1300 m). General distribution: Cameroun, Gabun.

Diopetes deritas Hewitson, 1874. Open habitats and forest margins of Mpanda and Kigoma. Rare. Record: 1, 3b, 5b, 8a, 8b (900-1600 m). General distribution: Zaire to Uganda.

Virachola odana H. H. Druce, 1887. Females locally common in forests of Kigoma; males very rarely seen. One male taken near Sibweza, in woodland. Record: 1, 2a, 3a, 4a, 5a, 5b, 6, 8a, 8b (800-1000 m, 2000 m at Mt. Sitebi). General distribution: Kenya and Uganda to W. Africa.

Virachola diocles Hewitson, 1869 (text-fig. 32). Rather common on *Brachystegia*

hills of Mpanda and Kigoma. Also Ufipa. Record: 3a, 3b, 6, 8a, Chala (1000-1200 m, 1800 m at Chala).

Virachola lorisona Hewitson, 1862 (text-fig. 33). Rather common on wooded hills and forest margins of Mpanda and Kigoma. Record: 4a, 4b, 5a, 5b, 6, 8a, 8b (800-1900 m).

Virachola ufipa spec. nov. (text-fig. 34, pl. 12 figs. 50, 51, pl. 13 figs. 52, 53). Somewhat between *V. diocles* Hew. and *V. lorisona* Hew., with forewing red area reaching hind margin, but somewhat restricted; underside more like that of *V. diocles* than that of *V. lorisona*. The latter has much cleared markings.

Description. Antenna brown, white ringed; club brown, underside white at base; eyes hairy; frons dark brown with white lateral stripes which continue as almost a complete circle around the eyes; palpi black dorsally, white ventrally and laterally, third joint thin, as long as second joint, first joint as long as second and third combined.

Male. Tip of abdomen red; upperside fore wing black; red area hardly reaching cell and vein 3, basally not reaching base of vein 2, reaching hind margin; the outer black margin 3 mm wide at middle of area 1b, curved basad like a wedge in space 1a, leaving a 2.5 mm gap of red area, which is extended as a fine line along the margin to near tornus. Upperside hind wing red; lower part of cell black and gray, hairy; outer margin narrowly black, cilia black, a black androconial patch at base of vein 7; the tornal lobe red, bordered black, hairy; a tail at vein 1b. Underside fore wing silvery grayish, the red area of the upperside somewhat shining through; discal spots contiguous, same shade as ground colour, outlined with dark gray and white on both sides; spots in 5 and 6 a little displaced towards margin, otherwise discal spots almost a straight line; there are faint submarginal spots outlined in white; a white outlined patch at end of cell; the hair pencil is dark brown. Underside hind wing ground colour as fore wing; discal spots irregularly placed particularly those in area 2 and 3 which are placed on edge and a little towards base; the discal spots are outlined in darker gray and white; the space between the discal and submarginal spots is whitish; a narrow whitish stripe along margin, then a very fine blackish stripe; cilia pale gray with a darker median stripe; there is a red lunule with black center near margin in space 2; the lunule in 1b is red with a small blue dot distad; also a red patch in 1a proximad of the black lobe; some blue scales between the black lobe and the red patch, also a few blue scales at the tip of the lobe; a rectangularly shaped and white bordered spot at the end of cell, one spot in the cell, one basal spot in 7 and a faint spot just below the cell touching the cell spot. Length of fore wing 14.8 to 15.8 mm.

Female. Fore wing brown with median, pale area as in *lorisona*; hind wing basal part, costal fold and costa to vein 6 are brown; the rest of the wing up to distal part of the cell pale violet blue with strongly marked, dark veins; a tail at vein 2; the spot of the underside in area 2 shining faintly through; there is a brown submarginal line and a blackish marginal line; cilia on both wings white.

Underside whitish gray; fore wing discal spots very faint, almost invisible, but this may be an individual variation; there is an even, one mm wide submarginal band and an equally wide marginal line, the outer border of this is finely black; hind wing as in the male, but the lunules are yellowish, not red. Length of fore wing 17.5 mm.

Genitalia ♂: Very similar to the genitalia of *V. diocles*; valva longer and more slender as shown in the figures (text-fig. 34 vs. 32).

Habitat. Open woodland. Record: Chala in Ufipa (1800 m).

Holotype ♂ : Tanzania, Ufipa, Chala, August 1973, J. Kielland. Allotype ♀ : idem. Paratype: Same, but May 1972, 1 ♂. Holotype and allotype in the National Museum, Nairobi, paratype in J. Kielland collection.

Virachola dinochares Smith, 1877. Locally common in woodland of Mpanda, Kigoma and Ufipa. Record: 3a, 3b, 5a, 5b, 6, 7, 8a, 8b, Chala (800-1600 m, 2000 m at Mt. Sitebi).

Virachola antalus antalus Hopffer, 1855. Very common in woodland and savanna and open grassland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, 9b, Chala, Gombe (800-2200 m).

Virachola vansonii Pennington, 1948. Woodland and *Brachystegia* hills and montane grassland of Mpanda, Kigoma and Ufipa. Not uncommon. Record: 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Rungwa, Chala (900-2000 m). General distribution: described from Zululand and recorded from Malawi.

Very difficult to separate from *V. penningtoni* van Son, 1939, and *V. magdae* Gifford, 1953. Identified by Dr. H. Stempffer. This species was taken by the author also in the Singida area, N. E. of Tabora and in Ruaha Nat. Park.

Virachola penningtoni van Someren, 1939. Among specimens sent to Dr. Stempffer for determination, one female and one male appears to belong to this species. Taken in woodland and montane grassland. Record: 5b at Sitebi, Rukwa basin (900-2000 m).

Capys catharus Riley, 1932. Open habitats at Sitwe, Mahale, Luntampa and Sitebi. Not common. Record: 1, 3a, 4a, 5a, 5b (1200-1900 m). General distribution: Malawi and Katanga.

Capys disjunctus Trimen, 1895. Open grassland at Mt. Sitebi, Mahale and at Gombe. Record: 1, 5b, Gombe (1500-2300 m).

Capys connexivus Butler, 1897. Open and wooded habitats of Mpanda, Kigoma and Ufipa. Rather common. Record: 1, 3a, 5b, Kishi, Chala (1200-2000 m).

Capys brunneus Aurivillius, 1915. One male taken in woodland at Lubalizi in Kigoma, March 1971. Record: 3a (1200 m).

Subfamily Lycaeninae Leach, 1815

Lycaena abbotii Holland, 1892. Montane grassland of Ufipa. Here common. Record: Sumbawanga area, Chala, Mbuzi Mt. (1800-2100 m). *L. abbotii* is by some authors considered a race of *L. phlaeas* Linnaeus, 1761. The latter occurs at Ngara District, north of Kigoma.

Subfamily Polyommatae Swainson, 1827

Anthene (Cupidesthes) leonina Bethune Baker, 1903. One female from the Mihumu forest, one female Kefu forest, one female Kasoge and one male from a stream-bed near Kasangatangwe N.W. of Ikola. Record: 1, 2b, 8a, 8b (800-900 m). General distribution: W. Africa to Zaire and Uganda.

Anthene (Cupidesthes) isobelae Jackson, 1965. Forests and woodland of Mpanda and Kigoma. Very rare. Sibweza and Mihumu. Record: 6, 8a (900-1100 m). General distribution: Uganda.

Anthene (Cupidesthes) irumu Stempffer, 1948. On wet sand in the Kefu forest, Kasoge forest, on bushes at Luntampa and Ntakatta. Also on wet river sand at upper Katuma. Record: 1, 4a, 5a, 5b, 8b (800-1600 m). General distribution: Central African Rep. to Zaire.

Anthene (Cupidesthes) wilsoni Talbot, 1935. A very large species. A female was taken in open vegetation near a riverine forest at Mihumu, November 1971. Record: 8a (ca. 900 m). General distribution: Ethiopia, Sudan to Kenya.

Anthene rubricinctus jeanneli Stempffer, 1961. Woodland and riverine forests of Mpanda and Kigoma. Common. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m).

Anthene anadema H. H. Druce, 1890. Rather common in forests of Kigoma and Mpanda. Record: 1, 4a, 5a, 5b, 8a, 8b, Gombe (800-1600 m).

Anthene ligures Hewitson, 1874. Forests and heavy woodland of Mpanda and Kigoma. Record: 1, 3a, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m).

Anthene hobleyi Neave, 1904. Montane forests on the Mahale Mt. Only place recorded, but common here. Record: 1 (1700-2200 m).

Anthene barnesi Stevenson, 1940. Forest of Mbuzi Mt. in Ufipa. Rare. Record: Mbuzi Mt. (2000 m).

Anthene definita Butler, 1899. Woodland and savanna of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Ufipa, Gombe (800-2000 m).

Anthene indefinita Bethune Baker, 1910. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m).

Anthene sylvanus Drury, 1773. Forests of Mpanda and Kigoma. Not uncommon. Record: 1, 2a, 3a, 3b, 4a, 5a, 8b (800-1700 m).

Anthene alberta Bethune Baker, 1910. Common in forests of Mpanda and Kigoma. Particularly in the sandstone area. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b (800-1600 m).

Anthene schoutedeni Hulstaert, 1924. Forests of Mpanda and Kigoma. Rather common. Record: 1, 2a, 3a, 3b, 4a, 5a, 8a, 8b (900-1600 m).

Anthene lemnos Hewitson, 1878. Forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5b (800-1800 m).

Anthene princeps Butler, 1876. Woodland and savanna of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe, Biharamulo, Mbizi forest, Chala (800-2200 m).

Anthene liodes liodes Hewitson, 1874. Less common. In forests of Mpanda and Kigoma. Record: 1, 3a, 5a, 6, 8a, 8b (800-1300 m). Rather low altitude.

Anthene butleri livida Trimen, 1881. Two males only at Nkungwe in Mpanda. Woodland. Record: 6 (1000 m).

Anthene nigropunctata Bethune Baker, 1910. Woodland of Mpanda and Kigoma. Uncommon. Record: 3a, 4a, 5b, 6, 7, 8b, Biharamulo (800-1200 m).

Anthene otacilia Trimen, 1868. Woodland of Mpanda, Kigoma and Ufipa. Not common. Record: 1, 3a, 3b, 6, 8b, Gombe, Chala, Mbuzi Mt. (800-1500 m, 1800 m at Mt. Chala).

Anthene talboti Stempffer, 1936. Woodland of Mpanda and Kigoma. Not common. Record: 3a, 5b, 6 (1000-1600 m). Pupae taken on species of Mimosaceae.

Anthene amarah Guerin, 1847. Very common in woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Chala (800-1800 m).

Anthene lunulata Trimen, 1894. Common in woodland, savanna and open grassland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, Gombe, Ufipa (800-2000 m).

Anthene larydas Cramer, 1780. Very common in woodland and forests of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, 9a, 9b, Gombe (800-1700 m).

Anthene crawshayi crawshayi Butler, 1899. Common in woodland and savanna of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 5b, 6, 8a, 8b, Gombe (800-1500 m).

Anthene gemmifera Neave, 1910. Wooded hills of Mpanda and Kigoma. Very local. Record: 3a, 5a, 5b, 6, 8b (1000-1700 m).

Anthene staudingeri Smith & Kirby, 1894. A few males and one female taken at a riverbed inside the Ntakatta forest. Record: 5a (ca. 1500 m). General distribution: W. Africa to Zaire and Uganda.

Anthene phoenicis Karsch, 1893. Forests and heavy woodland of Mpanda, Kigoma and Ufipa. Not common. Record: 2a, 4a, 5a, 5b, 6, 8b, Chala (1000-1600 m). General distribution: W. Africa to Uganda and Zambia.

Anthene hades Bethune Baker, 1910. Forests and woodland of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 3a, 4a, 5a, 5b, 6, 8a, 8b, Gombe, Chala (800-2000 m). General distribution: W. Africa to Zaire.

Anthene lamias Hewitson, 1878. Riverine forest near Mugombazi river and at Kasoge in Kigoma, at Kampisa in Mpanda. Rare. Record: 1, 5b, 8b (800-1500 m). General distribution: W. Africa to Zaire and Uganda.

Cupidopsis cissus Godart, 1824. Most open habitats of Mpanda, Kigoma and Ufipa. Common. Record: widespread (800-2200 m).

Cupidopsis jobates Hopffer, 1855. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Less common than *C. cissus*. Record: 3a, 3b, 5a, 5b, 6, 8b, Ufipa (1000-1800 m).

Pseudonacaduba sichela Wallengren, 1857. Very common in woodland and forest of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Chala, Gombe (800-2000 m).

Pseudonacaduba aethiops Mabilie, 1877. One male taken on the Katuma-Mpanda road; one male at Sibweza and several males in the Kasoge and Kefu forests. Local and uncommon. Record: 1, 3a, 4a, 5a, 6, 8b (800-1400 m). General distribution: W. Africa to Uganda and Kenya.

Lampides boeticus Linnaeus, 1767. Ubiquitous. Throughout Mpanda, Kigoma and Ufipa (780-2200 m).

Uranotauma antinorii Oberthür, 1883. Common in woodland and forests of Mpanda, Kigoma and Ufipa. Particularly in the Mahale area. Record: 1, 4b, 5a, 5b, 8a, 8b, Gombe, Mbuzi Mt. (800-2000 m).

Uranotauma lunifer Rebel, 1914. Montane forest of the Mahale Mt. Male not uncommon. June to November. Record: 1 (1600-2200 m).

Uranotauma poggei Dewitz, 1879. Woodland of Mpanda and Kigoma. Common. The whole year. Record: 1, 2b, 3a, 5b, 6, 8a, 8b, Gombe (800-2000 m).

The genitalia of *U. poggei* and *U. lunifer* are identical. There is, however, no

doubt that they are separate species. *U. lunifer* lives in montane forest; *U. poggei* is much more adapted to woodland and is generally found at lower levels, but it flies together with *U. lunifer* over the whole range of the latter. The external characters are constant in both species.

Uranothauma nubifer Trimen, 1895. Heavy woodland and forest of Mpanda, Kigoma and Ufipa. Mostly at higher altitudes. The whole year. Common. Record: 1, 3a, 3b, 4b, 5b, 6, Sumbawanga, Chala, Mbuzi Mt. (1200-2000 m).

Uranothauma delatorum Heron, 1909. Forests of the Mahale Mt., Mt. Sitebi and Mbuzi Mt. in Ufipa. Record: 1, 5b, Mbuzi Mt. (1600-2000 m).

Uranothauma falkensteini Dewitz, 1879. Forest of Kasoge and at Katuma river and Gombe. Very local. The whole year. Record: 1, 6, Gombe (800-1200 m).

Uranothauma titei Cottrell, [1968]. Close to *U. vansomeri* Stempffer, 1951. Very common in woodland and savanna of Mpanda, Kigoma and at Biharamulo. A female taken at high altitude on Mt. Karobwa. Elsewhere at much lower levels. The whole year. Record: 2b, 3a, 3b, 4b, 5b, 6, Biharamulo (1000-1200 m, 1700 m at Karobwa). Dr. Cottrell wrote me in 1968 that he was naming this species *U. titei*. Its publication, however, has not been confirmed.

Phlyaria cyara Hewitson, 1876. South of Kigoma only taken in the Kasoge forest; north of Kigoma common in the Kasekera forest at Gombe. Record: 1, Gombe (800-1700 m).

Phylaria heritsia intermedia Tite, 1958. Common in forest margins of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8b, Gombe (800-1700 m).

Cacyreus audeoudi Stempffer, 1936. Scarce in forests of the Mahale area, Ntakata and Luntampa forest. Record: 1, 4a, 5a (800-1600 m).

Cacyreus virilis Aurivillius, 1924. Forests and heavy woodland of Mpanda, Kigoma and Ufipa. Common. Record: 1, 3a, 5a, 5b, 6, 9a, Mbizi forest, Chala Mt., Mbuzi Mt. (1000-2200 m).

Cacyreus lingens Cramer, 1781. Very common in woodland and forests of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 7, 8a, 8b, Mbizi forest, Chala, Mbuzi Mt., Gombe (800-2000 m).

Cacyreus palemon Cramer, 1782. Forests and forest margins of Ufipa. Common. Record: Mbizi forest, Chulwe Mt., Chala, Mbuzi Mt. (2000 m).

Harpencyreus major Joicey & Talbot, 1924. Montane vegetation, forest margins and clearings of the Mahale Mt. and Ufipa highland. Locally common. Record: 1, Mbizi forest, Chulwe Mt. Chala Mt., Mbuzi Mt. (1600-2200 m).

Harpencyreus junio Butler, 1896. A few specimens taken on grassland near the Mbizi Forest, Ufipa (2200 m), February 1978.

Syntarucus pirithous Linnaeus, 1767. Very common in all habitats of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Syntarucus jeanneli Stempffer, 1935. Very common in all habitats of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Syntarucus babaulti Stempffer, 1935. Common in most habitats of Mpanda and Kigoma. Record: 1, 3a, 3b, 5a, 5b, 8a, 8b, Gombe (800-2000 m).

Syntarucus marginalis Aurivillius, 1925. Mpanda and Ufipa in open habitats. Very rare. Record: 6, Sumbawanga (800-2000 m).

Syntarucus brevidentatus Tite, 1958. Woodland and open habitats of Mpanda and

Kigoma. Not common. Record: 5b, 6, Gombe (1000-1500 m).

Syntarucus pulcher Murray, 1874. Marshy habitats of Mpanda. Very rare inland, but more common along marshy shores of Lake Tanganyika during the dry season. Record: 2b, 6, 7 (776-1100 m).

Castalius hintza Trimen, 1864. Scarce in woodland of Mpanda, Kigoma and Ufipa. Record: 6, 8b, Chala (1000-1800 m).

Castalius calice calice Hopffer, 1855. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m).

Castalius melaena Trimen, 1887. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: 3a, 3b, 5b, 6, Ufipa (800-1800 m).

Castalius margaritaceus Sharpe, 1891. Very common in forests of Mpanda, Kigoma and Ufipa. Both high and low level. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b (800-2200 m). The specimens from this area are rather similar to *C. carana* Hew., 1876, in external characters, but the genitalia correspond with that of *margaritaceus*. It is very common in all forests south of Kigoma and also occurs at the Ngara District, south of Bukoba.

Tarucus sybaris Hopffer, 1855. *Brachystegia* woodland and savanna of Mpanda, Kigoma and Ufipa. Not common. Record: 1, 6, Chala (800-1800 m).

Zizeeria knysna Trimen, 1862. Very common in woodland and open grassland of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Zizina antanossa Mabilie, 1877 (= *otis* Fabr., 1787). Open grassland of Mpanda, Kigoma and Ufipa. Less common. Record: 3a, Mbizi forest, in open grassland, Mbuzi Mt., Gombe (1500-2100 m).

Zizula hylax Fabricius, 1775 (= *gaika* Trim., 1862). Very common in woodland and open grassland of Mpanda, Kigoma and Ufipa. Record: widespread (800-1900 m).

Acticera lucida Trimen, 1883. Common in open habitats and woodland of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Acticera stellata Trimen, 1883. Montane grassland of Ufipa. Record: Near Sumbawanga, Chala and Mbuzi Mt. (2000 m).

Azanus mirza Plötz, 1880. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1900 m).

Azanus moriqua Wallengren, 1857. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1900 m).

Azanus natalensis Trimen, 1887. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1900 m).

Azanus jesous Guerin, 1847. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1900 m).

Azanus ubaldus Cramer, 1782. Woodland and savanna of Mpanda. Not common. Record: 3b, 6 (1100-1600 m).

Eicochrysops mahallakoena Wallengren, 1857. Open montane grassland of Mpanda, Kigoma and Ufipa. Common only in Ufipa. Record: 3a, 5b, Sumbawanga (1700-2000 m).

Eicochrysops nandianus Bethune Baker, 1906. Montane grassland in Ufipa. Record: Sumbawanga, Mt. Chulwe (1900 m).

Eicochrysops messapus Godart, 1819. Open habitats of Mpanda, Kigoma and Ufipa. Common. Record: 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Ufipa, Gombe (900-2000 m).

Eicochrysops hippocrates Fabricius, 1793. Swampy land and riverine thickets of Mpanda and Kigoma. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Lepidochrysops dollmani Bethune Baker, 1922. *Brachystegia* hills of Wanzizi. Extremely rare. November-December only. Record: 3b (1250-1400 m). General distribution: Rhodesia, Zambia.

Lepidochrysops cinerea cinerea Bethune Baker, 1922. Woodland and open grassland of Mpanda and Kigoma. Locally common. Record: 2a, 3a, 3b, 5a, 5b, 8a, 8b (1000-2000 m). The species normally occurs in *Brachystegia* woodland, 1000-1400 m, from late October to early December. In August and September specimens are found in a quite different habitat, viz., montane grassland, between 1700 and 2000 m. At this time of the year no specimens are found in the other habitat. It is, therefore, probable that specimens from the two different habitats belong to two different species. But they cannot be separated on the basis of external or genital characters. The genitalia of the Tanzania specimens differ somewhat from Kenya *cinerea*.

Lepidochrysops plebeja proclus Hulstaert, 1924. *Brachystegia* hills of Mpanda. Local, in November-December. Record: 3b, 5b, 6 (1100-1600 m).

Lepidochrysops solwezii Bethune Baker, 1922. *Brachystegia* hills of Mpanda and Kigoma. Common in November to December. Record: 2a, 3b, 4a, 5a, 5b, 6, 8a, 8b (900-1700 m).

Lepidochrysops mpanda Tite, 1961. Open montane grassland of Mweze and at Sitebi Mt. August to September. Record: 3a, 5b (1700-2000 m). Endemic to this area.

Lepidochrysops intermedia cottrelli Stempffer, 1954. Common on a *Brachystegia* hill near Ntakatta. A few specimens taken further north and at Lubalizi. November only. Record: 3a, 4a, 5a, 8b (1000 to 1400 m). General distribution: Ndola in Zambia and Malawi.

Lepidochrysops anerius kiellandi Stempffer, 1973. Woodland of Mpanda and Kigoma. Sometimes common. November only. Record: 2a, 3b, 5a, 5b, 8a, 8b (900-1400 m). General distribution: Nominotypical race described from Elisabethville in Zaire. November 1971 this species was very abundant between Ntakatta and Mugombazi river. Other years uncommon.

Lepidochrysops spec. *Brachystegia* woodland of Sibweza, Mabu, Wanzizi, Kampisa, Ngondo. October to November. Not common. Record: 3a, 3b, 5b, 6 (1000-1600 m).

Lepidochrysops spec. Three males taken in open, montane grassland on Mt. Chala, October 1971, and a series was taken at the same place in September 1973. Record: Chala Mt., observed at Mbuzi Mt. (2000 m). Flying time: (August) September to early October. Apparently a new species.

Lepidochrysops inyangae Pinhey, 1945. One male taken at Kabakaranga, November 1958; one female on a *Brachystegia* clad hill just north of Ntakatta. November only. Record: 2a, 5a (900-1400 m). General distribution: the species was only known from Inyanga in Rhodesia.

Lepidochrysops spec. Open habitats of Chala in Ufipa. Record: Chala (1700-1800 m).

Lepidochrysops gigantea Trimen, 1898. Woodland in hilly country of Mpanda and Kigoma. Rather common. October to January. Record: 2a, 3a, 3b, 5a, 5b, 6, 8b (1000-1600 m).

Lepidochrysops cupreus Neave, 1910. Montane grassland of Mpanda. Local. August to September. Record: 3a, 5a, 5b (1600-2000 m).

Euchrysops barkeri Trimen, 1893. Common in woodland and savanna of Mpanda and Kigoma. Record: 2a, 3a, 3b, 4a, 5a, 5b, 6, 7, 8a, 8b (800-1600 m).

Euchrysops dolorosa Trimen, 1887. Open habitats of Mpanda and Kigoma. Rather common. Mainly in the dry season. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6 (1000-2000 m).

Euchrysops subpallida major Bethune Baker, 1922. Open, montane grassland of Mpanda, Kigoma and Ufipa. Locally common. Record: 1, 3a, 5a, 5b, Mt. Chulwe, Mbuzi Mt. (1600-2000 m).

Euchrysops mauensis Bethune Baker, 1923 (Det. by Dr. Stempffer). Montane grassland of Kigoma, Mpanda and Ufipa. Record: 1, 3a, 5a, 5b, Mbuzi Mt. (1500-2000 m).

Euchrysops albistriatus koena Strand, 1911. On grassland with scattered shrubs and trees at Mweze highland and at Lublizi. April and August. Record: 3a (1200-1700 m). General distribution: W. Africa to Uganda.

Euchrysops malathana Boisduval, 1833. Very common in open habitats and woodland of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Euchrysops brunneus Bethune Baker, 1922. Taken at Masaba in Kigoma in open habitats. Very rare. Record: 2a (1300 m).

Euchrysops osiris Hopffer, 1855. Very common in open and wooded habitats of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Euchrysops spec. Small species with rather pointed fore wing and dark underside, taken in open, stunted woodland at Kampisa in Mpanda. Record: 5b (1500 m).

Euchrysops spec. Small, light gray species with tails, taken in *Brachystegia* woodland at Wanzizi. Record: 3 b (1500 m).

Thermoniphas fontainei Stempffer, 1956. Kasoge forest only. Particularly along water courses. Not common and very local. Dry season. Record: 1 (800-900 m). General distribution: Moyen Congo to Katanga in Zaire.

Oboronia punctatus Dewitz, 1879. Dense forests of Kasoge, Mihumu, Kefu, Lubalizi. Local, but rather common. Record: 1, 3a, 8a, 8b (800-900 m). General distribution: W. Africa to Uganda.

Oboronia gussfeldti Dewitz, 1879. Several specimens flying amongst vegetation along Masale River, west of Mt. Karobwa. Record: 2a (1300 m); one female taken in the riverine forest, January 1978.

Athysanota ornata vestalis Aurivillius, 1895. Forests of Kigoma and Mpanda. Record: 1, 3a, 4a, 5a, 8a, 8b, Gombe (800-1400 m). General distribution: W. Africa to Uganda.

Freyeria trochylus Freyer, 1845. Open habitats and woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 5b, 6, 7, 8b, Ufipa (1000-2000 m).

Family HesperIIDae Subfamily Coeliadinae

Coeliades chalybe Westwood, 1852. Occurring in some evergreen forests of Kigoma

and extending into Mpanda. Mugondozi river, Kefu, Luntampa, Ntakatta and observed at lower Ujamba, Mahale. Record: 1 (observed), 3a, 4a, 5a, 8b (1000-1400 m). General distribution: W. Africa and Angola to Zaire, Uganda and N. W. Kenya.

Coeliades libeon Druce, 1875. Woodland and forest of Mpanda and Kigoma. Common. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m). All specimens collected south of the sandstone ridge are of the form *libeon*, while all the ones collected and observed north of the ridge (Kefu Forest) belong to the smaller form *brussauxi* Mabilie, 1877, without a purple sheen and more distinct white tornal border on the hind wing.

Coeliades anchises Gerstaecker, 1871. Taken on flowers on and near the beach of Gombe Stream Nat. Park. Also in open woodland. Record: Gombe (800-1000 m).

Coeliades forestan forestan Cramer, 1782. Very common in most habitats of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Chala, Gombe (800-2100 m).

Coeliades pisistratus Fabricius, 1793. Forest margins at Luntampa, Kampisa, Sibweza, Wanzizi and in Ufipa. Uncommon. Record: 1, 3a, 3b, 5b, 6, Mbuzi Mt. (1000-1700 m).

Coeliades sejuncta Mabilie & Vuillot, 1891. In the sandstone area and border area to the basement formations. Rather uncommon. Record: 5b, 8a, 8b (800-1500 m).

Coeliades hanno Plötz, 1879. Taken in riverine forest at Kampisa, Luntampa, Mt. Ipumba and at Gombe, where it was rather common at the time of collecting in December 1972. Record: 1, 4a, 5a, 5b, Gombe (800-1700 m).

Subfamily Pyrginae

Celaenorrhinus proxima proxima Mabilie, 1877. Not common in forests of Mpanda and Kigoma. Record: 1, 3a, 3b, 4a, 5a, 8a, 8b (800-1700 m).

Celaenorrhinus homeyeri Plötz, 1880. Katuma riverine forest of Mpanda, forests of Mugombazi, Mihumu, Kefu of Kigoma. Not common. Record: 5a, 5b, 6, 8a, 8b (800-1000 m, 1700 m near Mt. Sitebi). General distribution: W. Africa to Zaire, Uganda and Rhodesia.

Celaenorrhinus galenus Fabricius, 1793. Most specimens belong to the form *galenus*. Very common in forests of Mpanda and Kigoma. Record: widespread (800-2100 m).

Celaenorrhinus bettoni Butler, 1902. Rather common in forests of Mpanda and Kigoma. Record: 1, 3a, 3b, 4a, 5a, 5b, 8a, 8b (800-1700 m).

Tagiades flesus Fabricius, 1781. Very common in woodland and forests of Mpanda, Kigoma and Ufipa. Record: widespread (800-2000 m).

Eagris lucetia Hewitson, 1876. Common in forests of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 8b, Mbuzi Mt., Gombe (800-1600 m, 2000 m at Mbuzi Mt.).

Eagris decastigma purpura Evans, 1937. Several males taken in the Kefu and Kasha forests of Kigoma. November to February. Extremely local and rare. Record: 8b (900-1000 m). General distribution: Uganda and Kenya; nominotypical race from W. Africa to Zaire.

Calleagris lacteus lacteus Mabilie, 1877. Forests of Kasoge, the Mahale ridge, Kefu and Mihumu. Very rare. Record: 1, 5a, 8a, 8b (800-2200 m).

Calleagris jamesoni Sharpe, 1890; forms: *jamesoni* and *gava* Evans, 1937. Common in woodland and savanna of Mpanda and Kigoma. Record: 2a, 3a, 3b, 5a, 5b, 6 (1000-1600 m).

Calleagris hollandi Butler, 1896. Uncommon and very local in woodland of Mpanda and Kigoma. Dry season from May onwards. Record: 2a, 5b, 6, 8a (1000-1200 m). General distribution: Angola to Katanga, Zambia, Malawi and Uganda.

Eretis umbra maculifera Mabilie & Bouillet, 1916. Ufipa plateau in open grassland. Common. Record: Chala Mt., Mbizi Mt. (2000 m).

Eretis lugens Rogenhofer, 1891. Common in forests of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe, Mbuzi Mt., Kibondo (800-2100 m).

Eretis melania Mabilie, 1891. Common in woodland and forests of Mpanda, Kigoma and Ufipa. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Chala, Mbuzi Mt. (1000-2000 m).

Eretis mitiana Evans, 1937. Lukandamira forest at Mahale. From May to October. Record: 1 (1600 m). General distribution: W. Africa to Uganda and Kenya.

Sarangesa laelius Mabilie, 1877. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 1, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Chala (800-1700 m).

Sarangesa lucidella lucidella Mabilie, 1891. Woodland of Mpanda at Mtikimu. Record: 6 (1100 m).

Sarangesa phidyle Walker, 1870. Mpanda area in the south. Record: Rukwa basin (800-1000 m).

Sarangesa seineri tanga Evans, 1937. Woodland of Mpanda and Kigoma. Rather common. Record: 2b, 3b, 4a, 4b, 5a, 6, Gombe (800-1500 m).

Sarangesa motozi Wallengren, 1857; forms: *motozi* and *pertusa* Mabilie, 1891. Common in woodland and open habitats of Mpanda, Kigoma and Ufipa. Record: 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Rukwa basin (900-1500 m).

Sarangesa ruona Evans, 1937. In forests of Wanzizi and woodland at Sibweza. Also taken in the Rukwa basin and by Dr. Goodall at Gombe. Record: 3b, 6, Rukwa basin, Gombe (800-1500 m). General distribution: Ukerewe Island, Tanzania; Zambia and Malawi.

Sarangesa maxima Neave, 1910. Mpanda area and open habitats at Sumbawanga. Record: Mpanda, Sumbawanga (1000-1900 m). General distribution: Katanga, Zambia.

Sarangesa astrigera Butler, 1893; forms: *astrigera* and *neavei* Riley, 1921. Common in woodland of Mpanda and Kigoma. Record: 2b, 3a, 3b, 4a, 5a, 5b, 6, 7, 8a, 8b (900-1600 m).

Sarangesa haplopa Swinhoe, 1907. Woodland of Mpanda and Ufipa. Not common. Record: 3a, 4a, 6, Chala (1060-1900 m).

Sarangesa tricerata Mabilie, 1891. Woodland of Mpanda and Kigoma. Uncommon. Record: 3b, 6 (1000-1500 m). General distribution: W. Africa to Zaire.

Sarangesa maculata Mabilie, 1891. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m).

Sarangesa brigida atra Evans, 1937. Dense woodland at Sibweza. Very rare.

December 1970, January and April 1971. Record: 6 (1000 m).

Netrobalane canopus Trimen, 1864. Common in thickets and forest margins of Mpanda and Kigoma. Record: 3a, 3b, 4a, 5a, 5b, 6, 8b, 9a, Gombe (1000-1600 m).

Caprona pillaana Wallengren, 1857. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 6, Chala, 8b (1000-1900 m).

Abantis tettensis Hopffer, 1855. Two males taken drinking water at Sibweza. Extremely rare. Record: 6 (1060 m). Not seen for many years.

Abantis bismarcki arctomarginata Lathy, 1901. One specimen taken at forest margin of a Lubalizi riverine forest. Record: 3a (1200 m). General distribution: ssp. *bismarcki*, W. Africa to Kenya; ssp. *arctomarginata*, Zaire to Zambia and Malawi. Note: *arctomarginata* is a subspecies of *bismarcki*, according to Berger.

Abantis zambesiaca Westwood, 1874. Woodland of Mpanda and Kigoma. Common. Record: 2b, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b (800-1900 m).

Abantis paradisea paradisea Butler, 1870. Rather common in woodland of Mpanda and Kigoma. Record: 3a, 4a, 5a, 5b, 6, 8a, 8b (800-1500 m).

Abantis venosa venosa Trimen, 1889. Common in open woodland of Mpanda and Kigoma. Record: 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Spialia zebra bifida Higgins, 1925. Open grassland of Sitwe (Mweze). One record only, October 1958. Record: 3a (1700 m). General distribution: Kenya to S. Sudan; Ruaha in Tanzania.

Spialia depauperata Strand, 1911. Common in open habitats of Mpanda, Kigoma and Ufipa. Record: 3a, 3b, 5b, 6, Chala, Mbuzi Mt. (1000-2000 m). General distribution: Geita in Tanzania, Natal to Uganda.

Spialia colotes transvaaliae Trimen, 1889. Woodland of Mpanda at Sibweza only. Rare. Record: 6 (1000-1200 m).

Spialia secessus Trimen, 1891. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 3a, 3b, 4b, 5b, 6, Lake Katavi, Mbizi forest, Mbuzi Mt. (1000-2200 m).

Spialia dromus Plötz, 1884. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Biharamulo, Gombe, Mbuzi Mt. (800-2000 m).

Spialia spio Linnaeus, 1767. Common in woodland and open habitats of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Chala (800-1700 m).

Spialia diomus ferax Wallengren, 1863. Open grassland in Ufipa. Record: Mbizi Mt. (2200 m). One female taken February 1978. Underside markings correspond with ssp. *ferax* and it is probably the first record of this race from Tanzania. General distribution: ssp. *ferax* from South Africa to Zambia, ssp. *diomus* Hopff., 1855, from Tanzania, Kenya and Uganda to Ethiopia and Yemen.

Spialia mafa higginsii Evans, 1937. Open habitats of Kigoma, Mpanda and Ufipa. Uncommon. Record: 1, 3a, 3b, 5b, Chulwe Mt., Chala Mt. (1200-2000 m).

Gomalia elma Trimen, 1862. Forests of Mpanda, Kigoma and Ufipa. Common. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8b, Chala Mt., Mbuzi Mt. (800-2200 m).

Subfamily Hesperinae

Metisella midas midas Butler, 1893. Very common in Mpanda, and Ufipa on swampy grassland. Mainly in the wet season. Record: 3a, 3b, 4a, 4b, 5a, 5b, 6, Gombe, Mbizi forest, Chulwe Mt., Chala Mt. (900-2200 m).

Metisella orientalis Aurivillius, 1925. Common in highlands of Mpanda, Kigoma and Ufipa. Frequenting forest glades. Scarcer lower down. Mainly in the wet season. Record: 1, 2a, 2b, 3a, 4a, 5a, 5b, Mbizi forest, Mbuzi Mt., Chala Mt. (1150-2200 m).

Metisella trisignatus tanga Evans, 1937. Swampy forest glades of Mpanda and Kigoma. Locally common. Wet season. Record: 1, 3b, 5b, 6 (1000-2200 m).

Metisella kambove kambove Neave, 1910. Very common during the wet season in Mpanda and also Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, Gombe (1000-1600 m). General distribution: Zaire to Zambia.

Metisella carsoni Butler, 1898. Montane grassland of Kampisa, near Ntakatta and the Mahale ridge. Local and rare. Wet season only. Record: 1, 5a, 5b (1500-2200 m). General distribution: recorded from Fwambo in Tanzania.

Metisella formosus linda Evans, 1937. Woodland and savanna of Mpanda and Kigoma. Very common in the wet season. Record: 2a, 5b, 6, 8a, 8b (1000-1400 m).

Metisella willemi Wallengren, 1857. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8b, 9b, Gombe, Chala (1000-1800 m).

Tsitana wallacei Neave, 1910. Savanna and open woodland of Mpanda and Kigoma. Rather rare and local. Record: 2b, 6, 8b, (1000-1450 m).

Isoiteon punctulata Butler, 1895. Common in the wet season in woodland and open habitats of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 4a, 6, 8b, 9a, 9b, Gombe (1000-1700 m).

Ampittia capenas blanda Evans, 1946. Very common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-1600 m).

Kedestes mohozutza Wallengren, 1857. One male taken at riverside in Mbisi Forest, Ufipa (2200 m), February 1978.

Kedestes wallengrenii wallengrenii Trimen, 1883. Common in woodland and open habitats of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8b, Gombe, Chala, Mbuzi Mt. (1000-2200 m).

Kedestes paola paola Plötz, 1884. Two males taken settling on bare ground near a riverine forest at Mt. Sitebi. Open grassland. July 1972. Record: 5b (1750 m). General distribution: Angola and Zaire to Zambia; ssp. *protensa* Butler, 1901, W. Africa to S. Sudan, Uganda, and East Tanzania.

Gorgyra aretina Hewitson, 1878. Forests of Kigoma from Lubalizi to Mihumu. Rather common. Record: 1, 3a, 4a, 5a, 8a, 8b, Gombe (800-1300 m, 1700 m at Ntondo). General distribution: W. Africa to Uganda and Kenya.

Gorgyra mocquersii Holland, 1896. Taken in the Kasoge forest, Mkulya riverine forest, Kefu, Mukuyu and Ntakatta forests and at riverine forest of Kampisa. Rather rare. Record: 1, 3a, 5a, 5b, 8a, 8b (800-1500 m). General distribution: W. Africa and Angola to Uganda.

Gorgyra diva Evans, 1937. Woodland at Sibweza in Mpanda. Rare. Record: 5a, 6, 8b, Gombe (800-1500 m).

Gorgyra subfacatus Mabille, 1889. Not uncommon in forests of Mpanda and Kigoma at Gombe, Kefu and Ntakatta. Record: 5a, 8b, Gombe (900-1400 m). General distribution: Usambara in Tanzania and W. Africa.

Gorgyra minima Holland, 1898. Woodland of Mpanda at Sibweza and Kapanda. Rare. Record: 6 (ca. 1100 m). General distribution: W. Africa to Uganda and Kenya.

Gorgyra johnstoni Butler, 1893. Common in woodland and riverine forest of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b (800-1700 m).

Gorgyra bibulus Riley, 1929. Forests and forest margins of Mpanda and Kigoma. Local. Record: 1, 3a, 5a, 5b (1500-2000 m). General distribution: W. Africa to Uganda and Kenya.

Gorgyra kalinzu Evans, 1946. Forests of Kigoma and at Ntakatta and Mt. Sitebi in Mpanda. Uncommon and very local. Record: 5a, 5b, 8a, 8b (900-1900 m). General distribution: Uganda and Kasai in Zaire.

Note: According to De Jong (pers. comm.) the Tanzania specimens differ considerably from the Uganda specimens and belong either to a new race or a new species.

Teniorhinus ignita Mabille, 1877. Open woodland and forests of Kigoma and Mpanda. Not common except in certain forests of the sandstone formations as at Mugondozi and Kasha forest. Record: 2a, 6, 8a, 8b (800-1100 m). General distribution: W. Africa to Uganda and Zambia.

Teniorhinus harona Westwood, 1881. Common in *Brachystegia* woodland of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Teniorhinus herilus Hopffer, 1855. One record from Ugala Hills near Sibweza, a few from the Rukwa valley and from Kasoge. Rare. Record: 1, 6, Kipenzi at the foot of Ufipa escarpment (800-1250 m).

Pardaleodes incerta incerta Snellen, 1872. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m).

Pardaleodes sator Westwood, 1852; form *pusiella* Mabille, 1877. The Kasoge forest only. Not uncommon. Record: 1 (800 m). General distribution: W. Africa to Uganda and Kenya.

Pardaleodes bule Holland, 1896. Kasoge forest and Gombe Stream only. Rather common at Kasoge. Record: 1, Gombe (800 m). General distribution: W. Africa to Zaire, Uganda and Kenya. In Tanzania at Dodoma.

Xanthodisca vibius vibius Hewitson, 1878. Not uncommon in forests of Kigoma from Lubalizi to Mihumu and at Ntondo near Mahale. Record: 1, 3a, 4a, 5a, 8a, 8b (900-1700 m).

Acada biseriatus Mabille, 1898. Very common in *Brachystegia* woodland of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b (800-1700 m).

Osmodes thora Plötz, 1884. Kasoge forest and at Gombe only. Not uncommon at Kasoge. Record: 1, Gombe (800-900 m). General distribution: W. Africa to Zaire, Uganda and Kenya.

Parosmodes morantii Trimen, 1873. Common in *Brachystegia* woodland and savanna of Mpanda and Kigoma. Record: 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, Gombe (800-1500 m).

Acleros placidus Plötz, 1879. Kasoge forest and at Gombe only. Record: 1, Gombe

(800-1300 m). General distribution: W. Africa to Zaire, S. Sudan, Uganda and Kenya.

Acleros ploetzi Mabilie, 1879. Common in forests and forest margins of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 8a, 8b, Gombe (800-1600 m).

Acleros neavei Evans, 1937. In the Kasoge forest and forests of the sandstone area. Record: 1, 5a, 8a, 8b (800-1400 m). General distribution: Uganda and Zaire.

Acleros mackenii Trimen, 1868. Very common in woodland and forest margins of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Mbuzi Mt. (800-2000 m).

Acleros spec. Riverine forests of Mpanda and Kigoma. Rather common. Record: 1, 3a, 3b, 4a, 5a, 5b (1100-1500 m). Also known from Katanga by R. H. Carcasson (pers. comm.).

Acleros substrigatus Evans, 1946. Riverine forest of Mweze highland. One record only: 1 ♀, October 1958. Record: 3a (1700 m).

Semalea pulvina Plötz, 1879. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 8a, 8b (800-2000 m).

Semalea sextilis Plötz, 1886. Forests of Mpanda at Wanzizi. Very rare. Record: 3b (1500 m). General distribution: W. Africa to Zaire and Uganda.

Semalea arela Mabilie, 1891. Rather common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 4a, 4b, 5a, 5b, 8a, 8b (800-2000 m).

Hypoleucis tripunctata draga Evans, 1937. Forests of Kasoge, Luntampa and Ntakatta. Uncommon. Record: 1, 4a, 5a (800-1300 m). General distribution: Zaire to Uganda and Kenya; ssp. *tripunctata* in W. Africa.

Hypoleucis ophiura ophir Evans, 1937. Forests of Kigoma and Mpanda in the north-west: Kasoge, Luntampa, Kefu, Mugondozi, Ntakatta, Mihumu. Not common. Record: 1, 4a, 5a, 8a, 8b (800-1600 m). General distribution: Uganda; ssp. *ophiura* in W. Africa.

Meza larea Neave, 1910. *Brachystegia* woodland of Mpanda, Kigoma and Ufipa. Not uncommon. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8b, Chala (1000-1700 m). General distribution: Zaire, Zambia and Malawi.

Meza mabea Holland, 1894. Two males taken in the Kefu forest; several males at Lubalizi and in the Ntakatta forest. Very rare and local. Record: 3a, 5a, 8b (900-1500 m). General distribution: W. Africa to Cameroun. This is probably the first record from eastern Africa.

Meza cybeutes pallida Holland, 1894. Forest margins at Lubalizi, Luntampa, Kampisa and Ntakatta. Local and rare. Record: 3a, 4a, 5a, 5b (1200-1500 m). General distribution: Angola and Zaire to Uganda; ssp. *cybeutes* occurs from W. Africa to Zaire.

Andronymus neander neander Plötz, 1884. Common in heavy woodland and forest margins of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8a, 8b, Gombe (800-1600 m).

Andronymus caesar philander Hopffer, 1855. Very common in heavy woodland and forest margins of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1500 m).

Andronymus hero Evans, 1937. In riverine forests around Helembe, Mugondozi, Zanza, Mihumu, Ntakatta, Lubalizi. Local and uncommon. Record: 3a, 5a, 8a,

8b (900-1400 m). General distribution: W. Africa to Angola and Zaire. Probably first record from east Africa.

Andronymus helles Evans, 1937. From Kefu forest to Ntakatta. Very local and uncommon. Record: 5a, 8b (900-1400 m). General distribution: W. Africa to Zaire and Malawi.

Andronymus marina Evans, 1937. Taken in the Ntakatta forest, Kefu and at Mihu. Very local and rare (900-1600 m). General distribution: Toro and Mabira forests in Uganda.

Andronymus fenestrella Bethune Baker, 1908. In dense thickets of riverine forests of Mpanda and Kigoma. Not uncommon. Record: 2a, 3a, 3b, 4a, 5a, 5b, 8a, 8b (900-1700 m). General distribution: W. Africa to Zaire, Uganda and Malawi.

Chondrolepis niveicornis Plötz, 1883. Common in woodland and forests of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8b, Mbuzi Mt. (800-2200 m). Specimens from western Tanzania are considerably larger than specimens from Kilimanjaro, Arusha, Oldeani and east Tanzania. Genitalia identical.

Chondrolepis leggei Heron, 1909. A single male taken in the Lukandamira forest, foot of Mahale. Record: 1 (1600 m). General distribution: Zaire to Uganda and Kenya.

Zophopetes dysmephila Trimen, 1868. Near riverine forest at Kampisa. Flying at dusk, after sundown. Males seen whirling in very rapid flight above a young, wild date palm; females visiting flowers on herbs. April, July and September. Record: 5b (1500 m). General distribution: S. Africa and Mozambique to Malawi, Uganda and Senegal.

Zophopetes cerymica nobilior Holland, 1896. One male taken on flowering tree, early morning at Gombe. Lush lake-shore vegetation. Record: Gombe (800 m). General distribution: S. Africa, W. Africa, Mozambique, Malawi and Uganda.

Gamia shelleyi Sharpe, 1890. In the half-shade of thick forest at Luntampa, Lualizi, Ntakatta and lower Ujamba at foot of Mahale Mt. Rare. Record: 1, 2a, 3a, 4a, 5a (1200-1300 m).

Artitropa reducta Aurivillius, 1925. Kasoge forest and Kefu forest. Very rare. Record: 1, 8b (800-900 m). General distribution: Cameroun to Zaire, Kenya, Uganda and Malawi. According to Berger *reducta* is a true species.

Artitropa cama Evans, 1937. Taken on bushes at a forest river in the Kefu forest. One female March 1971; one male April 1972. Extremely rare and local. Record: 8b (900 m). General distribution: Cameroun. Probably first record from East Africa.

Artitropa milleri milleri Riley, 1925. Taken June 1971 and 1972 at upper reaches of Katuma river, between Mts. Sifuta and Sitebi; at Ntakatta February 1972. On flowers in forest. Record: 5a, 5b (1400-1600 m).

Gretna carmen capra Evans, 1937. Rare in the Kefu and Kasoge forests. North of Kigoma, at Gombe, it seems more common. Habit of settling on the bark of bare tree trunks, where it blends perfectly. Record: 1, 4a, 5b, 8b, Gombe (800-900 m). General distribution: the coast of Kenya and Tanzania.

Caenides leonora Plötz, 1879. A single male taken in the Kasoge forest, February 1971, very early in the morning. Record: 1 (800 m). General distribution: W. Africa to Zaire and Uganda; ssp. *dux* Evans, 1937, from Zaire and Malawi.

Caenides stoehri halma Evans, 1937. One specimen came to light at about 9 p.m.

in a forest at Luntampa. Also taken at Lubalizi and Ntakatta in dense forest, in daytime. April, September and November. Record: 3a, 4a, 5a (1200-1300 m). General distribution: Uganda, Kenya and at Mpala west of Lake Tanganyika; nominotypical race in W. Africa and Zaire.

Caenides dacela Hewitson, 1876. Forests of Kigoma and Mpanda. Not common. Record: 1, 4a, 5a, 8a, 8b (800-1300 m). General distribution: W. Africa to Zaire and Uganda.

Caenides hidarioides Aurivillius, 1896. Mukuyu forest in Kigoma and in the Ntakatta forest in shady places. Rare. Record: 5a, 8a (800-1500 m). General distribution: Sierra Leone and Ghana to Zaire. This is probably the first record from East Africa.

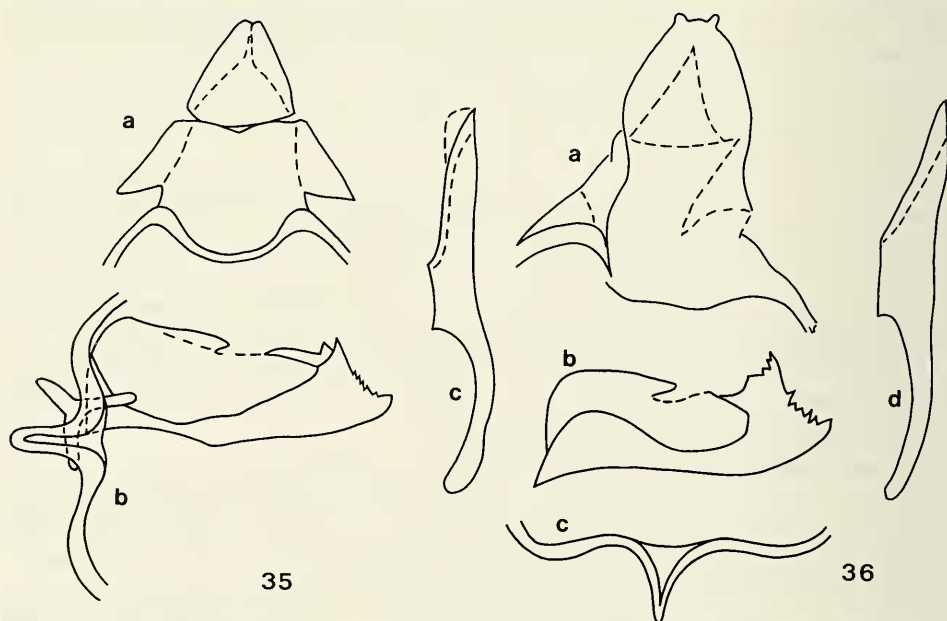
Monza alberti Holland, 1896. Forests of Mpanda and Kigoma. Record: 1, 3b, 5b (800-1500 m).

Monza cretacea crola Evans, 1937. Common in forests and heavy woodland of Mpanda and Kigoma. Record: 1, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Monza punctata Aurivillius, 1910. Forests of Mpanda and Kigoma. Record: 1, 5b (1500-1700 m).

Fresna netopha Hewitson, 1878. Forest margins and forests of Mpanda and Kigoma. Not uncommon. Record: 1, 3a, 5a, 5b, 8b, Kibondo, Gombe (900-1500 m). General distribution: W. Africa to Uganda and Kenya.

Fresna nyassae nyassae Hewitson, 1878; forms: *nyassae*, *ennuari* Riley, 1921, and *plata* Evans, 1937. Common in woodland of Mpanda and Kigoma. Record: 2a, 3a, 3b,



Figs. 35—36, Male genitalia of *Platylesches* species. 35, *P. ayresii* Trim., Katuma river, Mpanda, 1600 m, no. 1090; a, tegumen-uncus; b, valva and saccus; c, aedeagus. 36, *P. langa* stat. n., Katuma river, Mpanda, 1600 m, no. 1099; a, tegumen-uncus; b, valva; c, saccus; d, aedeagus.

4a, 4b, 5a, 5b, 6, 8b, Gombe by Goodall (800-1500 m).

Fresna cojo Karsch, 1893. Two males taken in the Kefu forest February and April; several males and a female taken at Lubalizi riverine forest on bean flowers and in the Ntakatta forest, January 1974. Also August to September. A rare species. Record: 3a, 5a, 5b, 8b (900-1500 m). General distribution: Sierra Leone to Nigeria and recorded from Kenya. A typical forest species.

Platylesches galesa Hewitson, 1877. Common in woodland and forests of Mpanda and Kigoma. Record: 1, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8b (800-1600 m).

Platylesches ayresii ayresii Trimen, 1889 (text-fig. 35). Sixteen males taken on wet sand at upper Katuma river near Kampisa, June 1971 and June 1972. Record: 5b (1600 m). This species, which Evans thought to be conspecific with his *P. ayresii langa*, does in fact fly together with *langa* in the recorded area. By dissecting the genitalia of both species, it was found that the uncus in *ayresii* was much narrower distally than in *langa* and that in dorsal view the two distal protuberances were much closer together; the valva with bipectinate dorso-distal process and less serrated distad (figs. 35 and 36); the saccus is more sharply tapering in *langa*. In *langa* the underside of the hind wing is only partly striated and the rest evenly sprinkled with white. General distribution: According to Evans (1937) Mozambique to South Africa.

Platylesches langa stat. nov. (*Platylesches ayresii langa* Evans, 1937) (text-fig. 36). Common in woodland and forests of Mpanda, Kigoma and Ufipa. Record: 3a, 4a, 4b, 5b, 6, Chulwe Mt., Mbuzi Mt. (1000-2000 m).

Platylesches robustus Neave, 1910. Forests and woodland of Mpanda, Sibweza, Wanzizi, Kampisa, Lubalizi, Katuma. Locally common, particularly at Katuma. Record: 3a, 3b, 5b, 6 (1060-1600 m). General distribution: S. Africa to Zaire, Zambia and Malawi. One record from Geita in Tanzania and from Ngara.

Platylesches shona Evans, 1937. Forest at Kampisa in Mpanda. Very rare. Record: 5b (1500 m). General distribution: Zaire to Rhodesia and Zambia.

Platylesches moritili Wallengren, 1857. Rather common in woodland and riverine forests of Mpanda and Kigoma. Record: 1, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe, Kibondo (800-1700 m).

Platylesches fosta Evans, 1937. Taken at Kampisa, Ujamba at Mahale, Sitwe, Ufipa. Highland forest margins. Uncommon. Record: 1, 3a, 5b, Mbuzi Mt. (1500-2000 m). General distribution: known from Toro and Mpanga forests in Uganda.

Platylesches picanini Holland, 1894. Forests of Mpanda and Kigoma. Rather common. Record: 1, 3a, 3b, 4a, 5a, 5b, 6, 8b, Gombe (800-1500 m, 2000 m at Mt. Sitebi).

Platylesches rasta anka Evans, 1937. Montane forests of Mpanda, Kigoma and Ufipa. Not uncommon. Record: 1, 5a, 5b, Mbizi forest, Mbuzi Mt. (1600-2100 m). General distribution: Nominotypical race from Malawi and east Tanzania as at Usambara and Mulundwe hill in Mikumi Nat. Park; ssp. *anka* described from W. Ankole and Mpanga forest in Uganda.

Platylesches affinisissima Strand, 1920. A small species closely resembling *affinisissima*, taken west of Mt. Karobwa, in the Kefu forest, at Mugombazi river, Ntakatta, Kampisa and Lukandamira. Everywhere very rare. Record: 1, 2a, 5a, 5b, 8b (900-1700 m). General distribution: Sierra Leone, Gambia, Central African Republic and Malawi. This species has always been taken in forests.

Platylesches tina Evans, 1937. Thirteen males taken on wet sand, in riverine forest along the upper reaches of the Katuma river near Kampisa, July 1972. Record: 5b (1600 m). General distribution: Malawi.

Brusa saxicola Neave, 1910. Woodland of Mpanda and Kigoma. Rather common in the rainy season. Record: 1, 2a, 2b, 3a, 3b, 5a, 6, 8b, 9b (900-1700 m).

Brusa allardi Berger, 1967. Open rocky country of the Sitebi Mt. and near Mbizi and at Chala Mts. Common in the dry season, but very local. According to Berger also from Yampehu (Ugaraba) in Kigoma. All the specimens examined by the writer from the Yampehu area were *saxicola*; also the habitat in that area differs considerably (*Brachystegia* woodland) from the typical habitat of *allardi* (montane grassland with rocky outcrops). Record: (2a), 5b, Chala Mt., Mbizi Mt. (1800-2100 m, Yampehu 1200 m). Always settling on rocks or bare ground. September 1970, 50 specimens were collected at Mt. Sitebi, all on rocks, one specimen observed at Mbizi Mt. on rocks; several specimens taken on Mt. Chala on rocks. The flight is rapid, but short and the insect difficult to detect. When settling, it seems to disappear due to its cryptic markings and colour blending with the rocks.

Zenonia zeno Trimen, 1864. Very common in most habitats of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Zenonia anax Evans, 1937. Woodland and forest margins of Mpanda and Kigoma. Less common, but sometimes abundant at Mt. Sitebi. Record: 2a, 3a, 3b, 4a, 5a, 5b, 6 (1000-2000 m). General distribution: Katanga to Malawi.

Pelopidas mathias Fabricius, 1798. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 1, 3a, 3b, 6, 8b, Gombe, Chala (1000-2000 m).

Pelopidas thrax inconspicua Bertolini, 1850. Common in woodland of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 5a, 5b, 6, 7, 8b, Gombe (800-1500 m).

Borbo lugens Hopffer, 1855. Common in forests of Mpanda and Kigoma. Record: 1, 2a, 3a, 4a, 5a, 8a, 8b, Gombe (800-2000 m).

Borbo fatuellus Hopffer, 1855. One of the commonest skippers in Mpanda and Kigoma. In most habitats, but particularly woodland. Record: widespread (800-2000 m).

Borbo fallax Gaede, 1916. Woodland of Mpanda and Kigoma. Less common. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 6, 8b, Gombe (800-1700 m).

Borbo fanta Evans, 1937. Common in woodland of Mpanda and Kigoma. Also open habitats at Mahale. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 6, 8b, Gombe (800-2000 m). General distribution: W. Africa to Zaire.

Borbo sirena Evans, 1937. Woodland of Mpanda and Kigoma, Sibweza and Ujombe. Rare. Record: 2b, 6 (1000-1200 m). General distribution: Zaire to Uganda, Kenya and Zambia.

Borbo perobscura Hamilton Druce, 1912. Forests and forest margins of Mpanda, Kigoma and Ufipa. Rather common. Record: 2a, 3a, 4a, 5a, 6, 8a, Muze (800-1500 m).

Borbo detecta Trimen, 1893. Common in woodland of Mpanda and Kigoma. Record: 2a, 3a, 3b, 4a, 5a, 5b, 6, 8b, Gombe (1000-1600 m).

Borbo micans Holland, 1898. Riverine forests and marshy habitats of Mpanda and Kigoma. Record: 1, 2a, 3a, 3b, 4a, 4b, 5a, 5b, 6, 8a, 8b, Gombe (800-1700 m).

Borbo borbonica borbonica Boisduval, 1833. Common in woodland and open habitats of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8b, Mbizi

Mt., Gombe (800-2200 m).

Borbo gemella Mabilie, 1884. Common in woodland of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, Chala (800-1800 m).

Borbo holtzii Plötz, 1883. Very common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: widespread (800-2200 m).

Borbo kaka Evans, 1946. A few specimens taken in the Kefu forest, Kasoge, Luntampa, Ntakatta and at Lukandamira. Record: 1, 4a, 5a, 8b (900-1700 m). General distribution: Katera and Kayonza forests in Uganda; Kakamega forest in Kenya.

Parnara naso monasi Trimen, 1889. Very common in forests and woodland of Mpanda and Kigoma. Record: 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 8b, Gombe (800-1500 m).

Gegenes pumilio gambica Mabilie, 1878. Common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 5b, 6, 8b, Ufipa (800-2000 m).

Gegenes niso brevicornis Plötz, 1884. Very common in woodland and savanna of Mpanda, Kigoma and Ufipa. Record: 1, 2a, 2b, 3a, 3b, 4a, 5a, 5b, 6, 7, 8b, Chala, Gombe (800-1700 m).

Gegenes hottentota hottentota Latreille, 1823. In woodland and savanna at Sibweza and Chala. Uncommon. Record: 6, 7, Chala (1060-1800 m).

SPECIES ERRONEOUSLY RECORDED FROM WESTERN TANZANIA

Liptena homeyeri Dewitz, 1884. Recorded by Stempffer, Bennet & May (1974) from "Tanzania, Mpala". This locality is in Zaire, north-west of Lake Tanganyika.

Aphnaeus brahami Lathy, 1903. Recorded by Stempffer (1954) from "Tanganyika, Mpala", which is in Zaire, north-west of Lake Tanganyika.

SPECIES AND SUBSPECIES DESCRIBED FROM THE STUDY AREA OR ITS VICINITY

Carcasson (1966), in his account of the Japanese collection from the Kigoma area, mentions 19 species and subspecies described from this area and its vicinity. Since then the following taxa have been described (an asterisk indicates that the taxon is described in the present paper):

**Graphium almansor wranghami* Kielland, 1978

**G. porthaon tanganyikae* Kielland, 1978

Charaxes cynthia mukuyu van Someren, 1969

C. lucretius maxima van Someren, 1971

C. ansorgei kungwensis van Someren, 1967

**C. ansorgei ufipa* Kielland, 1978

C. jahlusa kigomana van Someren, 1971

C. numenes aequatorialis van Someren, 1972

C. imperialis ugandicus van Someren, 1972

C. bipunctatus ugandensis van Someren, 1972

C. chepalungu van Someren, 1969

C. grahami van Someren, 1969

Palla publius kigoma van Someren, 1969

**Pseudathyma plutonica expansa* Kielland, 1978

- **Neptis ochracea reducta* Kielland, 1978
- **Belenois raffrayi similis* Kielland, 1978
- **Acraea ntebiae kigoma* Kielland, 1978
- **Abisara neavei mahale* Kielland, 1978
- **Virachola ufipa* Kielland, 1978
- **Iolaphilus montana* Kielland, 1978
- Aphnaeus erikssoni kiellandi* Stempffer, 1973
- Lepidochrysops anerius kiellandi* Stempffer, 1973
- L. intermedia cottrelli* Stempffer, 1954
- **Telipna sanguinea kigoma* Kielland, 1978

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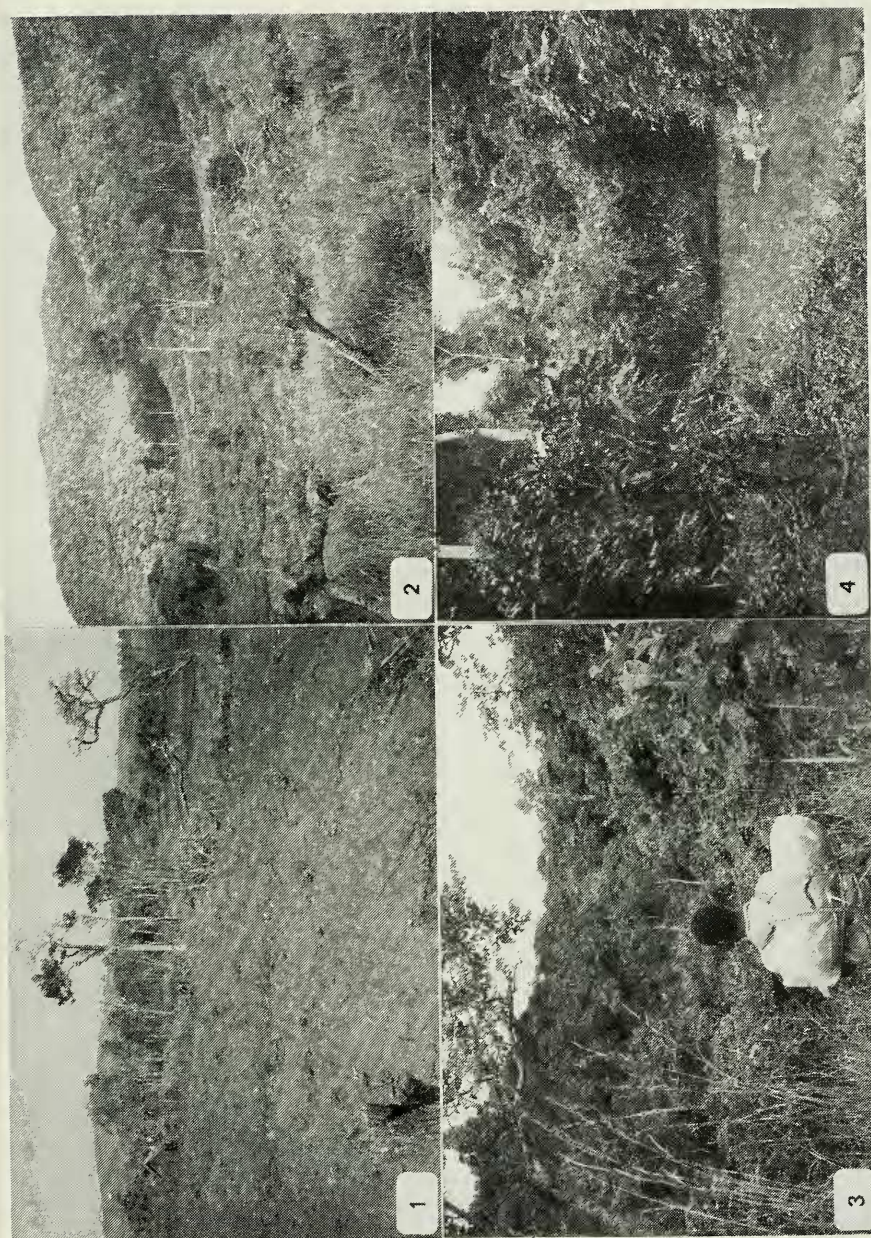


Plate 1.-Fig. 1. West of Mt. Karobwa; destruction of virgin forest in favour of agriculture. Fig. 2. Mukuyu; evergreen forest cleared for agriculture, then abandoned after a couple of years. Fig. 3. Fefu forest, seen from woodland ridge. Fig. 4. Kefu forest (Helembe); river with thick, tangled vegetation

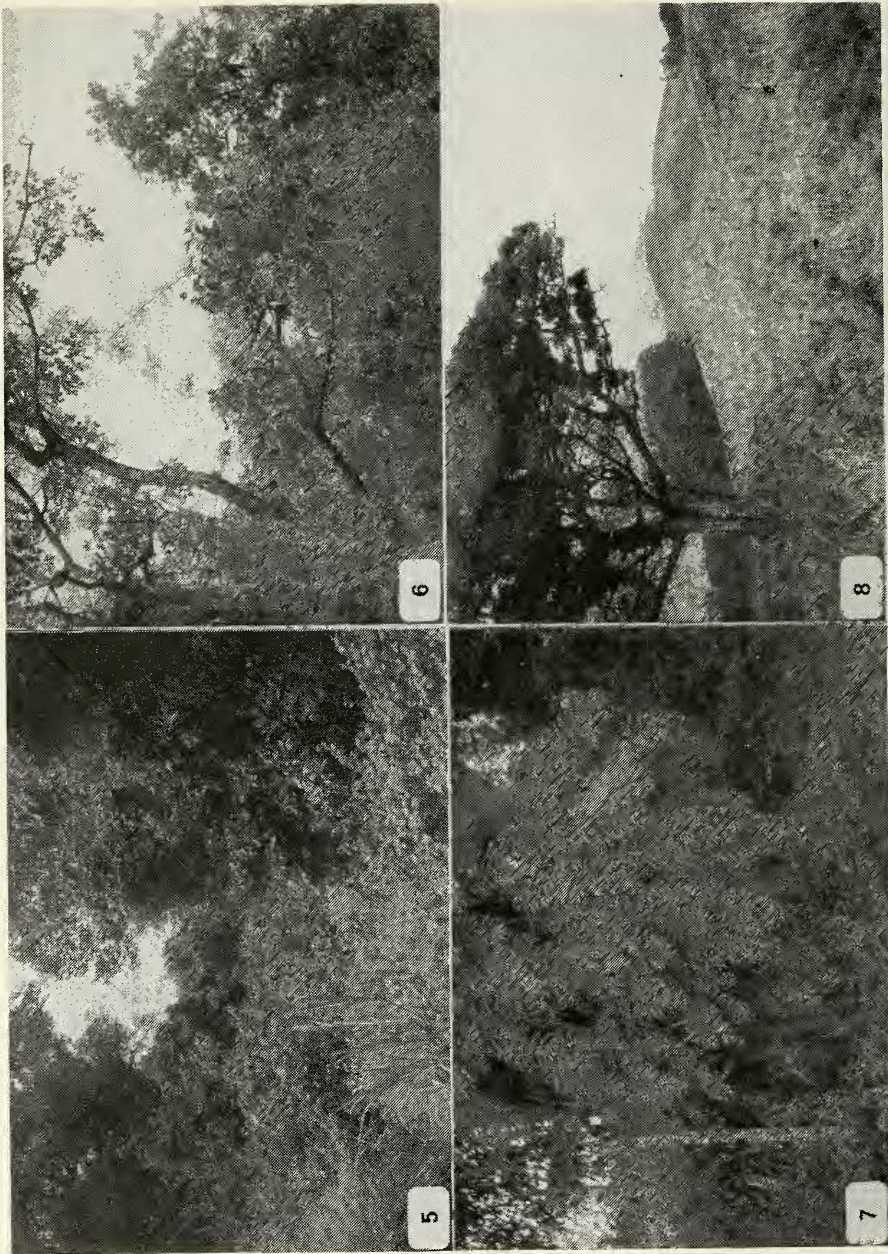


Plate 2. Fig. 5. Kampisa: riverine forest, 1500 m, glade. Fig. 6. Kampisa valley; thin bamboo in reverine forest, 1500 m. Fig. 7. Mt. Sitebi; montane forest, 1900 m. Fig. 8. Mt. Mahale; montane grassland and forest at 2000 m, scattered forest trees surviving in the open area.

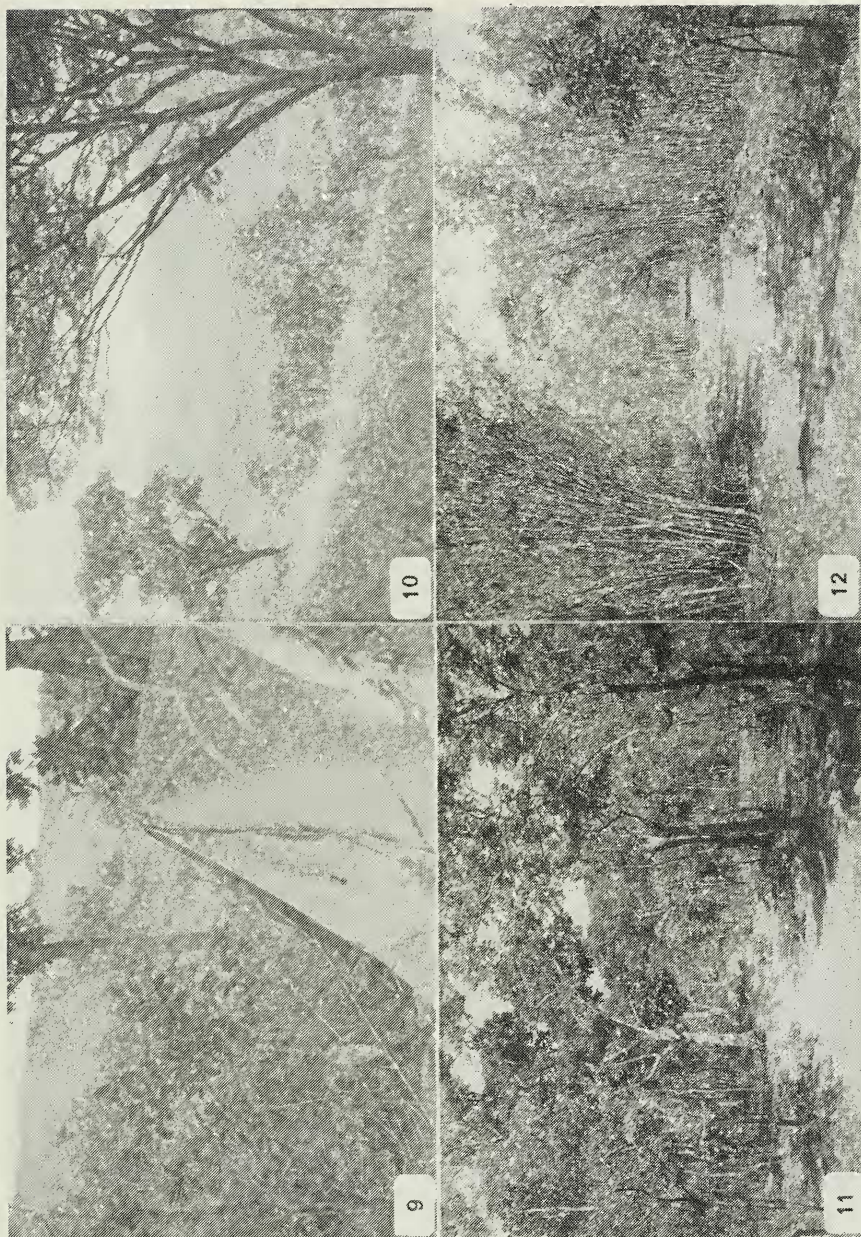


Plate 3. Fig. 9. Kampisa camp; beyond montane grassland towards Mt. Sitebi. Fig. 10. Kampisa valley; seen from hill clothed with *Brachystegia*, beyond Mt. Sifuta. Fig. 11. Simbo; open woodland at 1000 m. Fig. 12. U'tinta valley; bamboo with woodland at 1200 m.

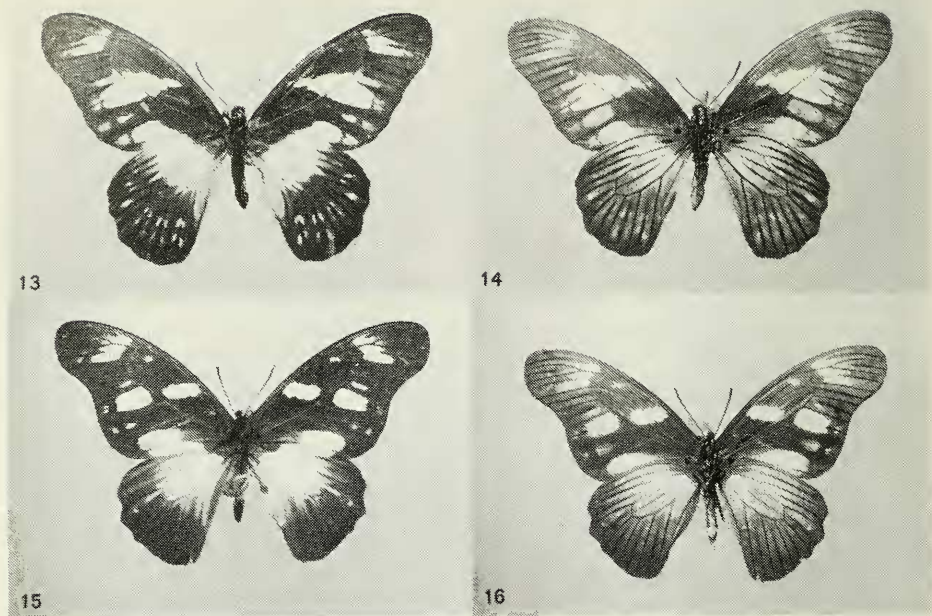


Plate 4. Figs. 13—16. *Graphium almensor kigoma* Carcasson, male, upper- and underside. 13—14, wet season form; 15—16, dry season form.

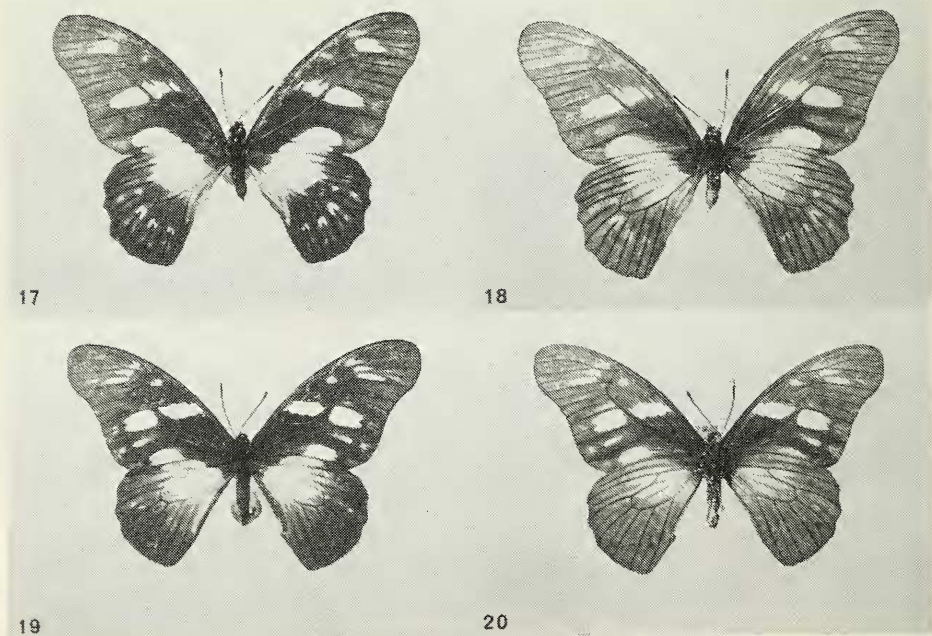


Plate 5. Figs. 17—20. *Graphium almensor wranghami* ssp. n., male, upper- and underside. 17—18, wet season form; 19—20, dry season form.

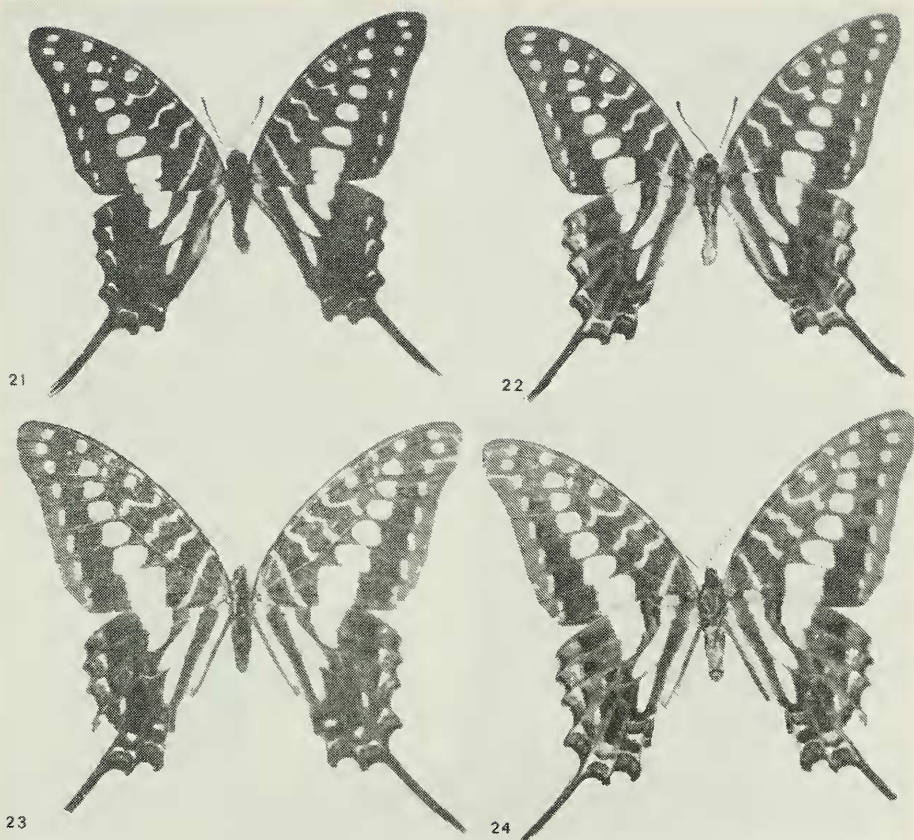
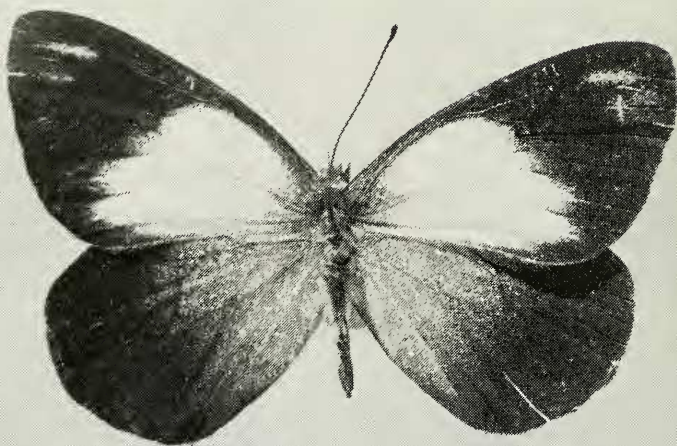
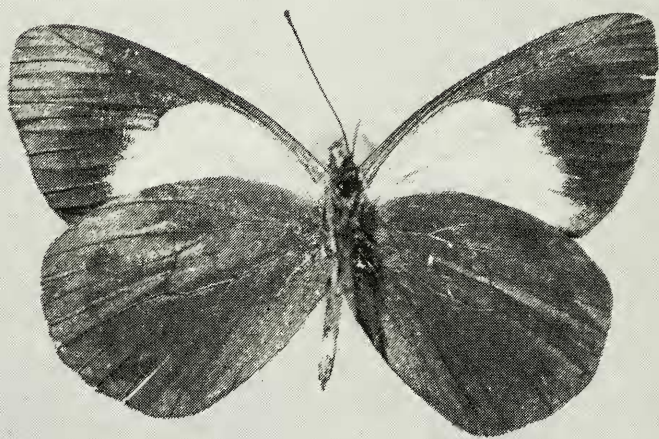


Plate 6. Figs. 21—24. *Graphium porthaon tanganyikae* ssp.n., upper- and under side. 21—22, male; 23—24, female.



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Plate 7. Figs. 25—26. *Belenois raffrayi similis* ssp. n., male, upper- and underside.

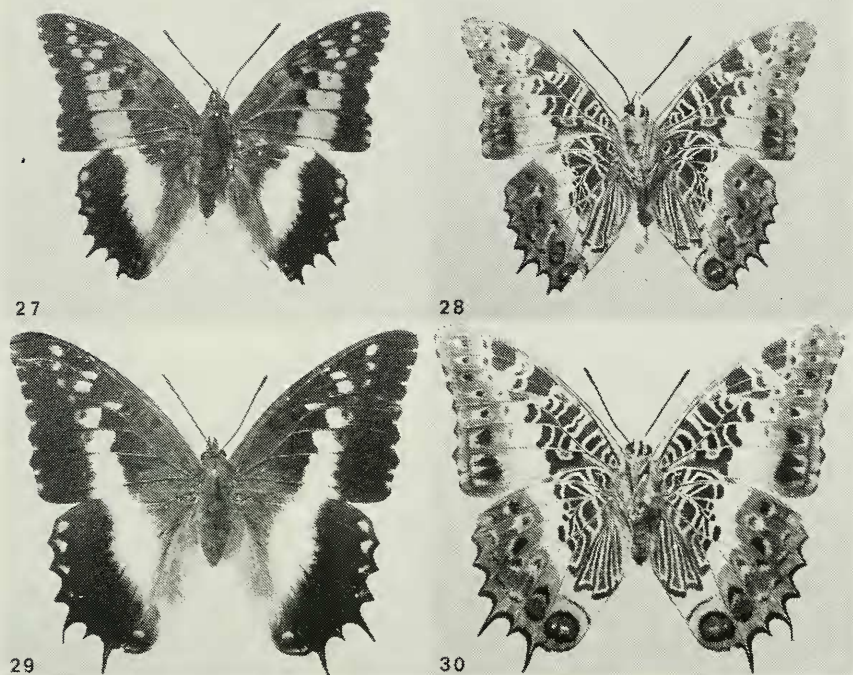


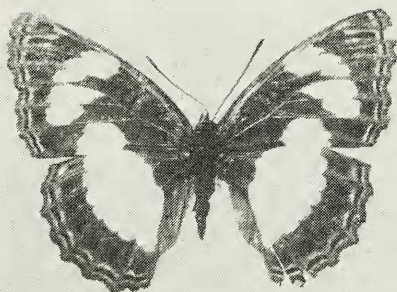
Plate 8. Figs. 27—30. *Charaxes ansorgei ufipa* ssp. n., upper- and underside. 27—28, male; 29—30, female.



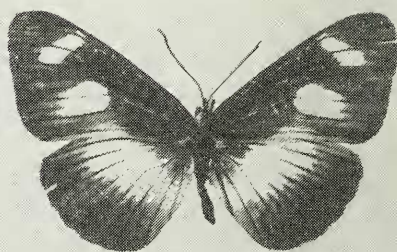
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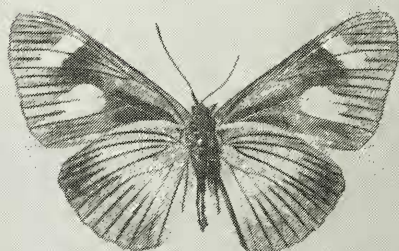
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Plate 9. Figs. 31—33. *Pseudathyma plutonica expansa* ssp. n. 31—32, male, upper- and underside; 33, female, upperside. Figs. 34—36. *Neptis ochracea reducta* ssp. n. 34, female, upperside; 35—36, male, upper- and underside.

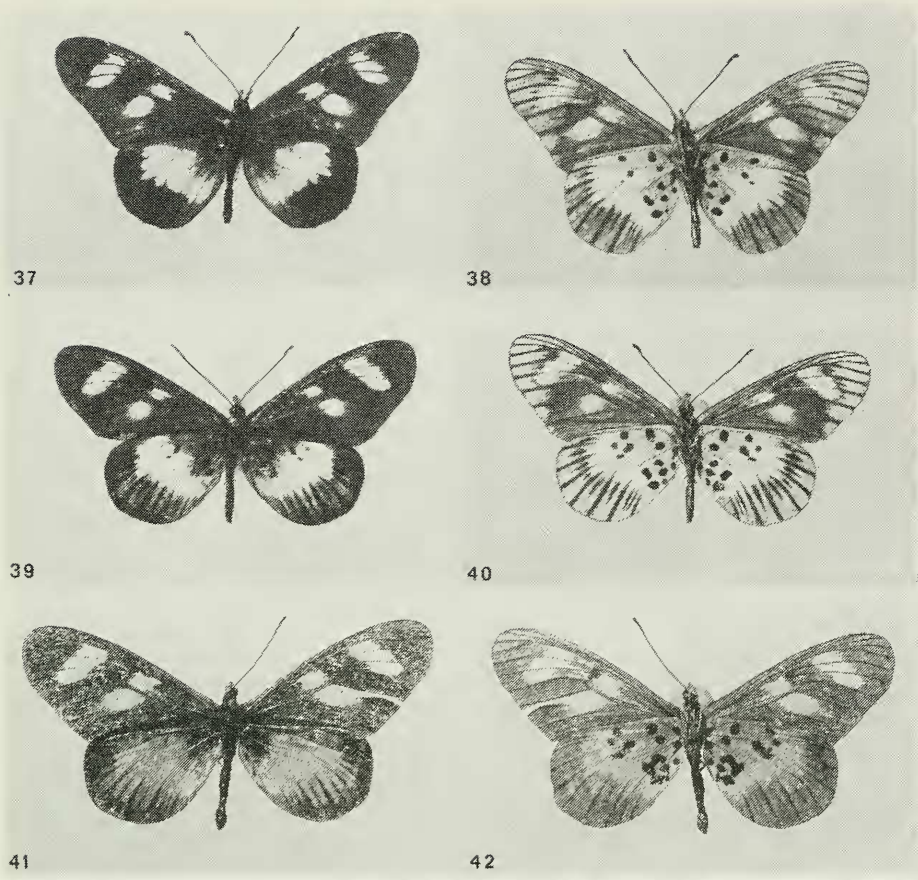


Plate 10. Figs. 37—42. *Acraea ntebiae kigoma* ssp.n., upper- and underside. 37—38, male; 39—40, female; 42—42, female form.

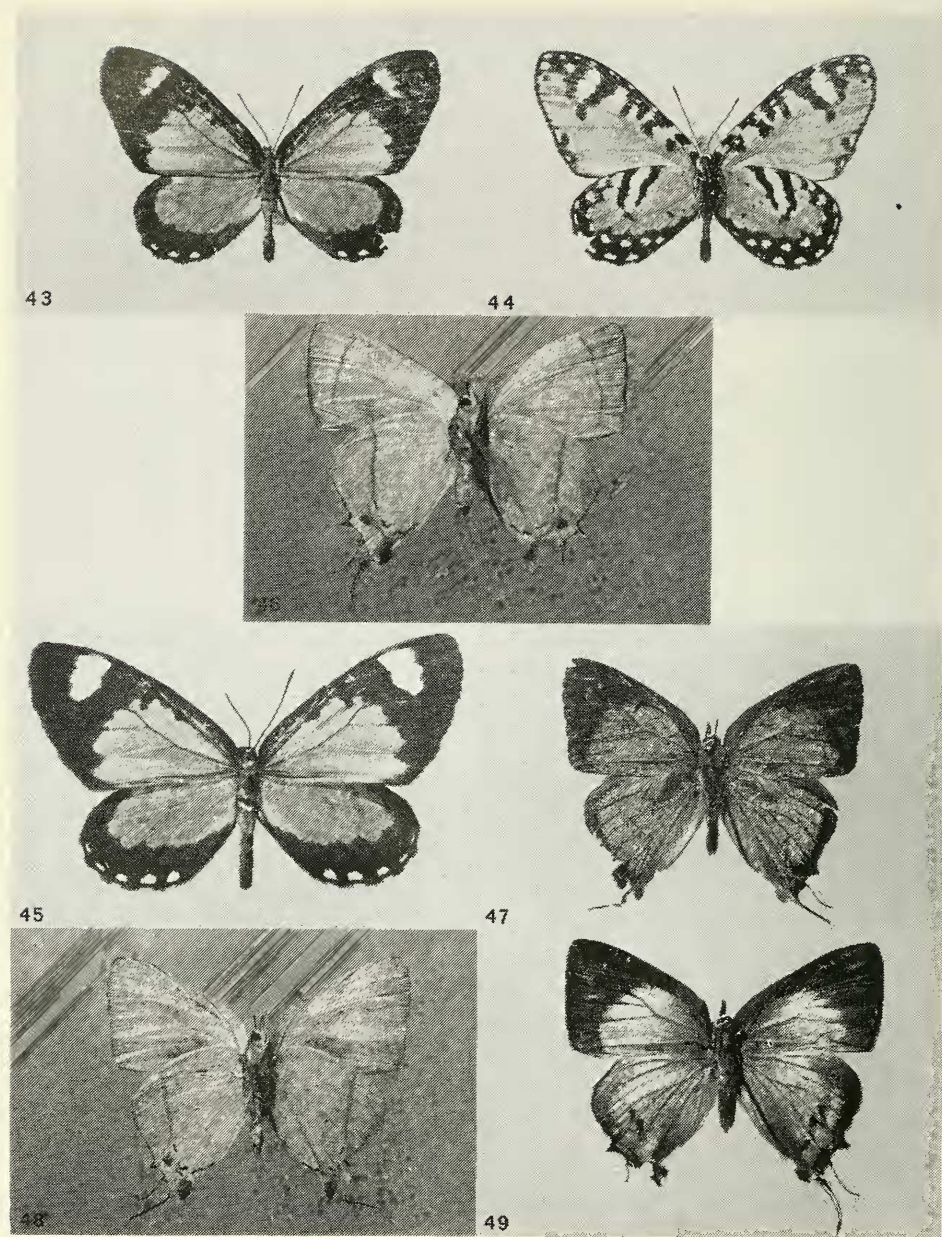
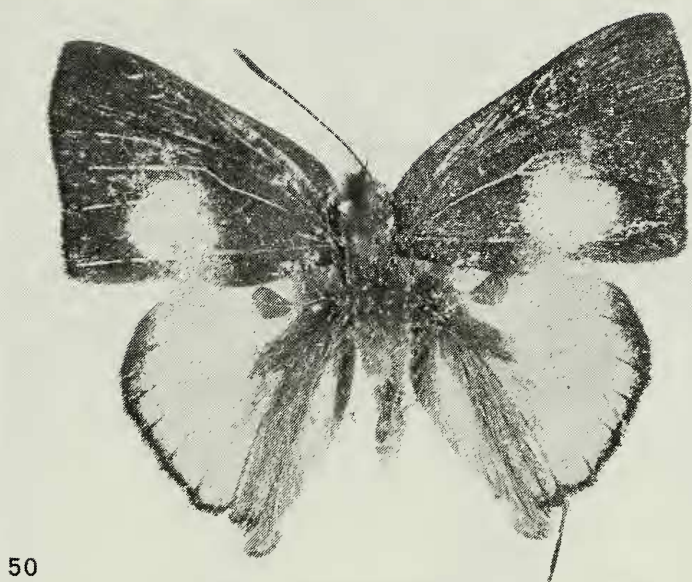
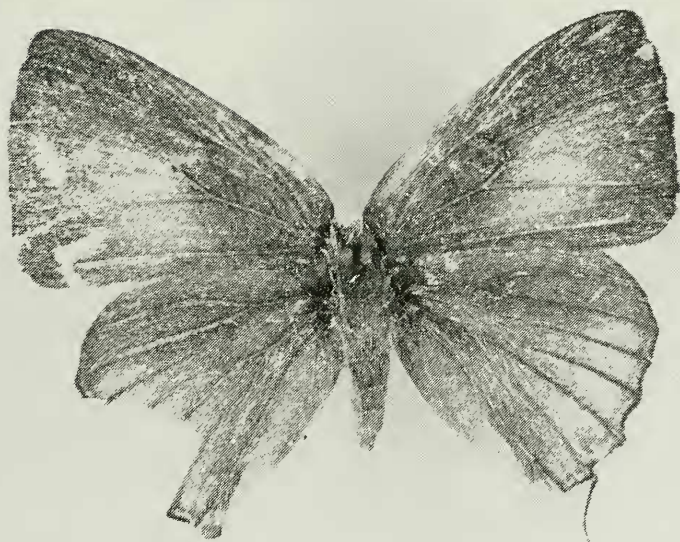


Plate 11. Figs. 43—45. *Telipna sanguinea kigoma* ssp.n. 43—44, male, upper- and underside; 45, female.
Figs. 46—49, *Iolaphilus montana* sp.n., upper- and underside. 46—47, male; 48—49, female.

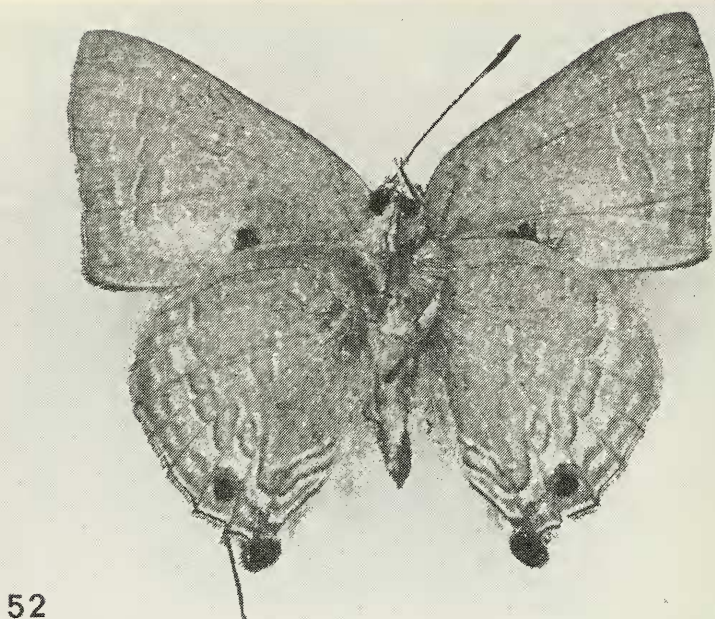


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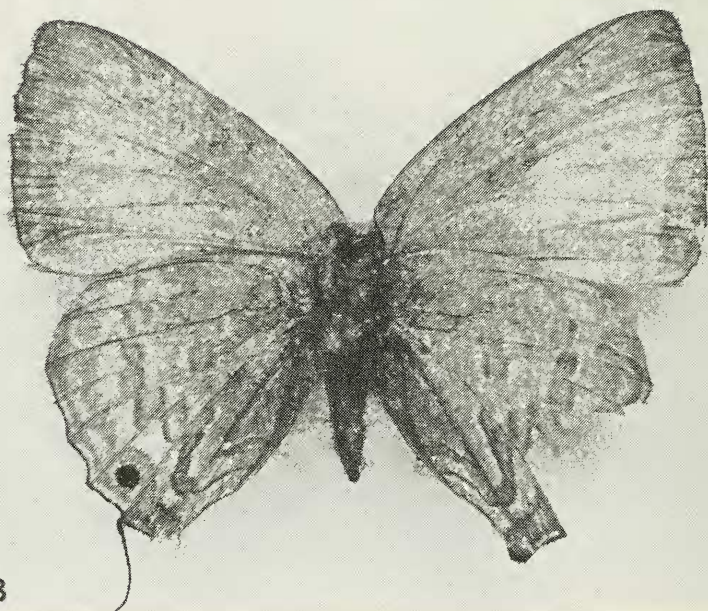


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Plate 12. Figs. 50—51. *Virachola ufipa* sp.n., upperside. 50, male, holotype; 51, female, allotype.



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Plate 13. Figs. 52—53. *Virachola ufipa* sp.n., underside. 52, male, holotype; 53, female, allotype.

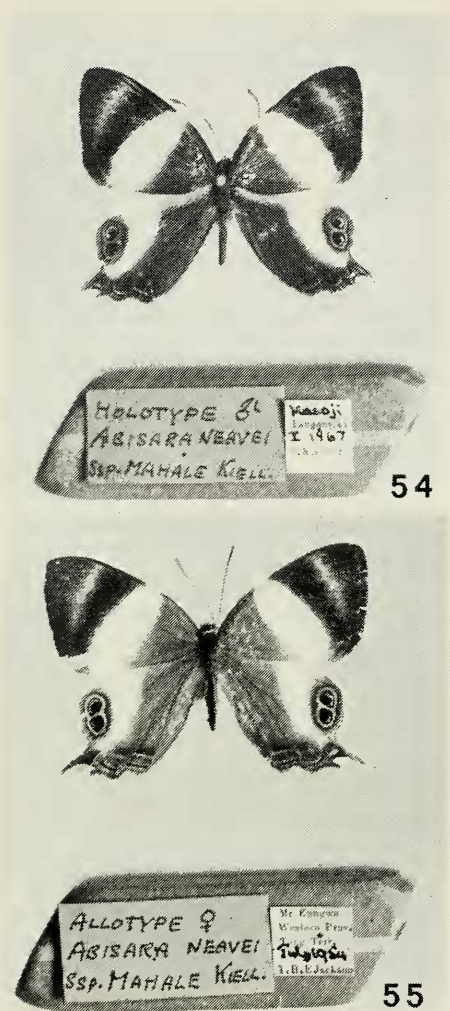


Plate 14. Figs. 54—55. *Abisara neavei* *mahale* ssp. n., upperside. 54, male, holotype; 55, female, allotype.